Management Services in Government

February 1974 Volume 29 Number 1

Management Services in Government

Incorporating the O & M Bulletin

February 1974 Volume 29 Number 1

Published by the Civil Service Department, Management Services, in collaboration with Departmental Management Services Officers. Correspondence and contributions should be addressed to The Editor, Management Services in Government, Civil Service Department, Whitehall, London SW1A 2AZ

New subscribers outside the Civil Service may place orders for a year's supply of MANAGEMENT SERVICES IN GOVERNMENT with the Editor; orders should be accompanied by a crossed cheque or postal order for £1, made payable to Her Majesty's Stationery Office. (Renewal of annual subscriptions is arranged by H.M.S.O.)

Offprints of articles and additional copies of supplements are available from the Editor. Orders from persons and organizations outside the Civil Service must be accompanied by a cheque or postal order, made payable to the Civil Service Department. The charge for copies is: offprints 2p per page; and supplements 8p per copy. Remittances should include an appropriate amount to cover postage. Subscribers may also purchase additional copies of the publication itself at a cost of 25p per copy, including postage.

New Office Equipment

Regular readers of the journal will notice that the section featuring information about new office equipment is missing from this edition.

For some time we have thought that the section in its present form no longer fulfils as useful a purpose as when it was first started as long ago as 1945. Whereas then very little was published elsewhere on office equipment, now plenty of information is generally available, not all of which is company orientated. We have felt that, to some extent, we were duplicating an already well-documented field of management services activity and that, with so much going on in other less publicized areas, the space could be better utilized.

We are still considering whether to continue the section in its present form or, alternatively, whether news about office equipment might be better presented in other ways; we would welcome the views of readers.

EDITOR.

Contents

Page

5 Some Aspects of Management
Foreword by R. W. L. Wilding

6 Some Aspects of Management

10 Management Concepts and Policies
Lord Brown

16 MbO in the Government Service—the First Five Years
C. J. Hancock

27 Working in Partnership with Management Consultants
R. S. Matthews and R. J. Maxwell

40 Career Development—the Scope for Individual Initiative
G. A. Mawer

46 Why Paper?—A Study in Publishing with Microfilm
Sqn. Ldr. J. J. Simmonds

51 The Power of the Box—Some Experiences with Videotape in Training
H. W. Bunkell

56 Management Systems Training Council

60 Computer Installations for Government Departments

Some Aspects of Management

Foreword by R. W. L. Wilding, *Under Secretary, Management Services, CSD*

CSD Management Services has recently undertaken a review of the experience which Government Departments have had so far of Management by Objectives.* The main question for such a review is, of course, what contribution MbO has made and can make to good management. In considering this, we found it necessary to try to formulate some statement, however cursory and incomplete, of what is commonly accepted as constituting good management at the present time. The statement was therefore worked out for our own internal purposes, but having done this, we thought it might be of some general interest in its own right.

The authors are well aware that to set out a statement of this kind is to state a set of problems, not to solve them. We all know we ought to do these things: the question is why we don't, and why we find it so difficult. We also know, of course, that no scheme or system can itself ensure good management; they are all tools to be used by the manager where they can be serviceable. The authors therefore make no claim that this paper provides answers: only that it may help to focus thought on some of the questions.

Nothing in the paper should be taken as implying that more emphasis is put on one aspect than another; each is seen as contributing to the whole. If one were allotting priorities, some might say (and we should not disagree) that the last aspect—motivation—should come first. The most important resource of any organization is the people it employs. And good management will only be achieved where they know and understand the objectives of the organization, and are involved as far as possible in those decisions which affect the way they do their work; and where their personal needs and aspirations are met wherever practicable. In other words, social responsibility towards its employees is a 'key area' for any organization.

The paper is deliberately written to describe management in general terms and is not specifically directed at the management of a Government Department. Some of the footnotes reflect points which are of special relevance in the Civil Service context.

Apart from taking the views of other CSD Divisions during the preparation of this paper we also sought those of Lord Brown who, in addition to his service as a Minister in the former Board of Trade, is well known both as an industrialist and as a writer on organization and management, and is an exacting critic of definitions that fail to define.

Lord Brown has not only given us valuable comments on our own paper, most of which are now incorporated, but has also very kindly prepared his own statement of Management Concepts and Policies, couched in the more specific terms that he prefers to use. Lord Brown's paper is also published in this edition.

We have not so far attempted to amalgamate the two papers, with their slightly different approaches, but it might well be worth while to try. We should welcome views from readers.

* See article at page 16–*Editor*

Some Aspects of Management

One way of looking at the management of work is to divide it into five major elements:

Planning
Accountability
Organization structure
Control
Motivation

In what follows, we attempt to analyse each of these elements in order to describe what seem to be its essential features. The small arabic numerals refer to footnotes, which give the meaning used in this paper for certain management terms.

Planning

(*a*) Management planning[1] should take account of five main factors:

(i) The tasks prescribed for the organization by any higher authority (which are sometimes referred to as determining its 'role'[2]).
(ii) The current aims[3] of the organization, i.e. what management sees as the essential purposes of its activity at the time.
(iii) The interests of any other organization or group affected by its activities.[4]
(iv) The interests of its staff.
(v) The availability of resources.

(*b*) Within the limits thus determined, the function of management planning is to formulate a strategy for the future conduct of operations and the ways and means of carrying it out. To produce an effective management plan it is necessary to decide:

(i) The selection of areas of activity.
(ii) The allocation of priorities between areas and within them.
(iii) Objectives[5] for the fulfilment of the plan.
(iv) The allocation of resources to each area, and any changes that are needed in them in the light of changes in (i), (ii) and (iii) above and of the time within which priority tasks must be completed.
(v) Any changes in organization or systems that are needed to carry out the plan effectively and efficiently.

(*c*) The objectives in the plan should:

(i) Contribute (within known external constraints and limitations on the use of resources) to the achievement of current aims and to the achievement of higher standards/better results in performance.

(ii) Include a statement of the time by which they are intended to be achieved.

(iii) Be expressed in such a form that success or failure in achieving them can be assessed and, where possible, measured against an indicator or standard.

(*d*) Each organizational unit (i.e. each part of the organization for the work of which an individual manager is accountable) should formulate its own plans and objectives consistent with and contributing to the wider objectives chosen by the larger units of organization of which they form a part.

(*e*) All plans should be reviewed at regular intervals in the light of

---

[1] Planning as an element of management is distinguished here from planning in the sense of 'policy-analysis'. In the context of Civil Service work, the analysis of policy is an outward-looking activity, which may take place over a broad or narrow front, directed at the needs of society (not, as in 'corporate' or 'strategic' planning in the private sector, at the needs of the organization which formulates the plan). Logically, it precedes management planning, which takes the results of policy-analysis and decision into account in formulating an inward-looking plan for the management of the whole of the activities of the Ministry or Department.

[2] In the context of Government, the tasks which make up the 'role' may be laid down in legislation, Royal Charter, or other prerogative instrument. They are frequently expressed in language which authorizes the organization to engage in a field of activity.

[3] Within the limits of activity prescribed as its role, and which are relatively permanent, management will have aims that vary from time to time. 'Aims' are the purposes for which any form of organized activity exists. They describe the purposes of the organization, but not the extent to which it will seek to achieve them. Overall aims may be expressed in a general form. In the case of a large organization, certainly of a complex Government Department, while it may not be possible or necessary to formulate statements of aims which describe the whole range of its activities in detail, it is usually necessary to analyse the overall aims into a number of more specific statements. A regular review of main aims can then serve two related purposes:

(*a*) To identify those areas to which management should give special attention and, where necessary, increased resources, over the planning period.

(*b*) To draw attention to areas of activity which are not essential to the role and do not occupy the attention of top management, but which because of external pressures or for other reasons, are absorbing a high or an increasing proportion of the available resources; it is necessary to check from time to time that they are part of, and contribute to, the aims of the organization.

[4] In the Government sector, these interests include other Departments and agencies of Government, industry and commerce, Parliament and the citizen.

[5] 'Objectives' are specific and, wherever possible, quantifiable targets to be achieved or bettered within a stated period of time.

events. The reviews should include the possible revision of aims, of constraints and internal 'policies' (e.g. general internal directives about personnel management, of the selection of areas of activity and priorities, of objectives and of performance standards.

Accountability

(*a*) The accountability of a manager may be defined by reference to a number of things, depending on the nature of his unit and of its contribution to the work of the organization. They may include:

(i) The tasks his unit is required to carry out.
(ii) The results to be achieved.
(iii) The performance of his unit in terms of quantity, quality, cost and time.
(iv) The use of the resources over which he has authority.

(*b*) However his accountability is defined, the extent of the authority (what he may or may not do to obtain and deploy resources, and the extent of his discretion to determine the activities of his unit) which is delegated to him personally should be made clear to him by his superiors. The limits of his authority will determine the limits of his accountability.[6]

(*c*) When the manager is subsequently held to account, his performance in managing the units should be assessed in the light of the decisions he has or has not taken in the period under review, and of their consequences (events which were not foreseen and which he could not have been expected to foresee being taken into account).[7]

Organization structure

(*a*) The overriding purpose of organization structure should be to ensure the efficiency and effectiveness of the work of the organization in fulfilling its aims.

(*b*) The organization should be structured to allow the operations necessary to carry out its plans to be divided into discrete areas of

---

[6] It is not easy to define the limits of a manager's authority in a way which is exhaustive and precise. But he should, wherever possible, be given examples of the major types of decision which he is authorized and expected to take and have his attention drawn to the range of policies which he must observe and which constitute the boundaries to the area over which he exercises authority to take decisions.

[7] Accountability is deliberately related here to the decisions taken (or not taken) by the manager, and not necessarily to the objectives of his unit that have or have not been achieved. Objectives may turn out to have been too easy or impossible. Their outcome will often be a useful starting-point for assessment, but it may not be more than a starting-point.

activity. Each area should be designed so that the accountability of the managers within it can be defined without ambiguity, and so that there is a minimum of confusion of authority between one area and another.

(*c*) It is rarely, if ever, possible to deduce the best structure for an organization directly from its aims. But planning, accountability, control and motivation will all be facilitated to the extent that distinct aims and the objectives contributing to them can be allocated to distinct managers and their units; and the structure should be checked periodically to see whether it remains consistent with the aims.

(*d*) Where two or more managers are accountable for tasks of which the objectives need to be harmonized, the relationships between them should be defined in such a way as to prevent ambiguity about their respective accountabilities.

(*e*) Where efficiency or economy suggests the need to organize certain support services on a 'common service' basis, the respective accountabilities of both the common service organization and the units which it supports should be separated and made clear.

Control

(*a*) The effectiveness and efficiency of the organization in carrying out its general plan should be regularly monitored against pre-established indicators and standards of performance, and adjusting decisions made as necessary.

(*b*) An essential condition for achieving (*a*) is the operation of a cost-effective system for providing each level of management with the control information it requires to make this monitoring possible.

(*c*) Each manager should regularly and systematically monitor the performance of his unit against its subsidiary plan in the same way as in (*a*) and, in the light of any decisions by higher authority, make his own adjusting decisions as necessary.

Motivation

(*a*) Managers and staff at all levels should be able to see that those at the top believe in what they are doing and know where they are going, and why.

(*b*) Managers and staff should be familiar with the aims of the organization and each manager should make sure that his staff have the opportunity to contribute to the formulation of the plan for his unit.

(*c*) Managers and staff should, wherever possible, be consulted and always told about all changes of plan and conditions of service which affect their work and their working environment.

(*d*) The objectives to which a manager is working and the standards of performance at which he and his unit should aim should, as far as possible, be agreed between him and his superior.

(*e*) Managers and staff should be encouraged to contribute suggestions for improvement and innovation.
(*f*) The operational needs of the organization in terms of effectiveness and efficiency and the personal, social and economic needs of its staff should be reconciled to the maximum practicable extent.
(*g*) Managers and staff should be helped to develop in order to improve their current performance and their suitability for promotion to jobs to which they aspire and for which they have potential.
(*h*) Staff at all levels should be aware of the system by which their performance is assessed by their superiors and should be made aware at least in general terms of the nature of that assessment.

Management Concepts and Policies

LORD BROWN, PC, MBE

Employment Work
The application of knowledge and exercise of discretion (discretionary component) within limits set by an immediate superior (or manager) and by higher policies (prescribed component) towards an objective set by the immediate superior, the whole being carried out within an employment contract.

It is useful to be able to refer to the prescribed and discretionary components of employment work.

Organization structure
A hierarchy of roles linked together by accountability and authority relationships set up to carry out work required by government or resulting from public or commercial demand.

Work roles
A specific position established within an organization structure. Different types of roles can be defined by use of the following criteria:

(*a*) Rank, and grade within that rank.
(*b*) Whether the occupant carries accountability for the work of subordinates. (Whether it is a managerial role.)
(*c*) Whether the occupant is accountable for advising others in a special field of knowledge (e.g. lawyers, scientists, establishment officers, O & M personnel, etc.), and if the occupant carries staff authority (*see below for definition*).

(*d*) Duties, functions or particular tasks to be carried out by the occupant.
(*e*) Samples of the major decisions which the occupant is authorized to make (discretionary component). And samples of the major policies limiting the authority of the occupant (prescribed component of work).

Superior-subordinate relationship
This is defined as one 'where A is accountable for ensuring that certain work is carried out and has subordinate B to assist him in this work. In this situation it is requisite that A should have authority:

(*a*) To prescribe B's work and assign tasks to him.
(*b*) To veto the appointment of B to the role.
(*c*) Apply sanctions to B (for example, record assessment of performance in such a way as to affect B's future career).
(*d*) Initiate the transfer of B from the particular role he carries, where he judges his performance in the role not to reach an adequate standard.'

Staff relationship
A superior (A) may need assistance in managing the activities of his subordinates (B1, B2, etc.). Such assistance may be needed, for example, on such dimensions of work as personnel and organizational matters or on the techniques or methods to be employed on work. The organization may contain in one of these dimensions a role, subordinate to A, whose occupant has authority to interpret A's policy to A's other subordinates and to give instructions within that policy. The occupant of such a role is a staff officer.

If B does not agree with the staff officer's interpretation he cannot disregard it, but must take the matter up with A. A remains accountable for the work of B1, B2 and his staff officer.

Immediate command
The immediate command (of a superior or manager) comprises all those employees who report direct to him.

Extended command
The extended command (of a superior or manager) comprises all those employees for whose work activities he is accountable. Organizational units are conveniently designated by naming a specific extended command and the type of work for which it is accountable.

Policy instruction
A communication from a superior (or manager) to any or all of his subordinates, or to those in his extended command, stating the actions which they must or must not take under given circumstances in the future.

Policies can be of major importance or trivial. They can be very general or very specific. Policy statements (often referred to variously as standing orders, routines or procedures) are the rules which circumscribe the area over which an employee is expected to use his own discretion and authority. Failure to conform to policies, thus defined, constitutes negligence or insubordination. Failure to use discretion, to take decisions and to act within the boundaries set by policies, constitutes abdication from accountability.

Accountability

The quality of a role that determines that the occupant shall be answerable for the consequences, directly or otherwise, of the decisions he takes and his use of authority.

The extent of the accountability of a role can be described in terms of the tasks set, the results to be achieved, the time within which those results are expected, the resources available and the degree of authority to deploy those resources and determine the activities of the members of the extended command which is subordinate to the role in question.

Assessment of performance

Assessment of performance is in terms of the degree of success by the employee in achieving the results required by his superior judged as far as possible by objective criteria but taking into account also variable conditions over which the employee has no control or which the employee could not be expected to foresee. One longer-term criterion of assessment is the general state of morale in the immediate or extended command of an employee who is also a manager.

Because of the inevitable existence of unquantifiable or uncontrollable factors affecting performance, assessment of individual performance always involves a degree of subjective judgment.

The assessment of recent past performance of an employee is part of the accountability of his immediate superior (or manager) aided by the knowledge of other persons who have data or experience of the performance of that employee in the previous roles which he has occupied in the organization.

Division of work between organizational units

Where a single task requires the work of more than one organizational unit, the work should, as far as possible, be split between them in such a manner as to enable the cross-over point manager to hold the managers of the units involved accountable for the clearly established and separate sub-tasks.

Where this is not possible it may be feasible to hold one unit accountable for the results on the total task by placing accountability on the other units for providing facilities and services. The cross-over point manager will then hold one unit responsible for the total task and the

other units accountable for the quality of the facilities and services which they provide.

Where neither of the above courses is feasible then a high degree of collateral relationship* will exist between the managers in command of the units.

Under such conditions it becomes specially important for the cross-over point manager to specify in clear terms the degree of authority and control over resources exercised by each of his subordinates in charge of the units.

The cross-over point manager will be held accountable by higher authority for the results obtained on the total task.

Planning and control

Every manager is accountable for conducting a review at regular intervals of the current and future work of his unit of organization. There are three dimensions into which all operational work can be sub-divided:

(*a*) The *Technical Dimension* (T) concerned with all the techniques, methods and equipment used and the quality of work.

(*b*) The *Programme Dimension* (Pr) concerned with the timing, scheduling, quantification and balancing of the flow of work against the resources available to carry it out.

(*c*) The *Manpower and Organization Dimension* (M & O) concerned with structuring and manning of the organization and training and development of personnel.

Technical dimension

The detailed headings under which a regular review may be necessary are as follows:

(*a*) Are current methods the best available for achieving optimum efficiency?

(*b*) Is available equipment and space being used to the best advantage?

(*c*) What new equipment or new methods of work are likely to be required against foreseeable change in the nature of work?

(*d*) What training of personnel is likely to be necessary to enable such new methods to be operated effectively?

(*e*) Is any person in the unit held accountable for keeping in touch with external technical development of methods which might assist the unit to do its own work more efficiently?

---

* *Collateral relationship* is one where the work of two people, ultimately subject to the authority of a common superior, intereacts in such a way that mutual accommodation is needed in certain decisions, and where neither has authority over the other. Where colleagues in collateral relationship fail to reach agreement, ultimate resolution can only be found at the cross-over point represented by that common superior.

Programme dimension
The headings under which a review may be necessary are as follows:

(*a*) What is the current situation on work in hand? Is there a backlog or a shortage of work? Are scheduled dates for completion of projects being adhered to?
(*b*) Is there any shortage or surplus of capacity in different areas of the unit? Is there a need for more personnel or equipment or space or can the unit carry out its current workload efficiently if capacity is reduced? Ought resources to be transferred from one part of the unit to another to balance capacity against load?
(*c*) How much is known of future load of work and has this implications for change in the capacity of the unit?
(*d*) Is the total capital investment in space, equipment, stocks of material, buildings, etc., the minimum reasonably necessary for the current and future programme of work?
(*e*) Are there programming techniques such as Critical Path Analysis or Operational Research, a knowledge of which would assist the unit in this dimension of work?

Manpower and organization dimension
The headings under which a review may be necessary are as follows:

(*a*) Is the existing organization, structure of the unit, etc., well matched to the current workload and the techniques being used to do it? Has the mix of work been changing in a manner which implies the need to restructure parts of the unit?
(*b*) Is the level of capacity of people in the various roles reasonably well matched in general to the level and quantity of work being delegated into those roles?
(*c*) Is the unit short of people of promising potential available to take on high-level work which can be foreseen or are there numbers of people of high potential seeking promotion to more important work which is not available to them?
(*d*) Is the distribution of personnel throughout sub-units consistent with the workload in those units or are some managers having to work staff overtime whilst other managers are retaining staff who are surplus to their requirements?
(*e*) Is the amount and quality of training of staff adequate to ensure high standards of performance and to assist those who seek promotion to achieve it?
(*f*) Are the physical conditions of light, heat, space and facilities in which staff work of adequate standard?

Staff management accountability
Every manager is accountable:

(*a*) For providing his immediate command with full opportunity for

contributing to the development of future plans and policies for his own organizational unit.

(*b*) For discussing changes of plan which affect the work and conditions of work of members of his extended command either directly with them or through his subordinate managers.

(*c*) For keeping members of his immediate and extended commands as fully apprised of his plans, of results and of future developments as is reasonably possible.

(*d*) For agreeing, subject to the policies of higher authority, with his immediate subordinates the criteria upon which he will base his assessment of their performance.

(*e*) For reconciling, to the maximum practicable extent, the operational needs of his unit in terms of efficiency with the social and economic well-being of the members of his extended command.

(*f*) For developing the experience, knowledge and performance of his immediate subordinates by suitable allocation of work and training and thus improving their prospects of promotion to posts to which they aspire.

(*g*) For encouraging all members of his immediate command to contribute suggestions for improvement and innovation.

(*h*) For maintaining a continuous survey to ensure that his own and higher policies are adhered to throughout his extended command.

Feedback of control data

Data, in financial and other quantitative forms, is required by all managers at regular intervals in order:

(*a*) To monitor performance on tasks against quantity targets and dates.

(*b*) To check that the resources being used are within authorized limits.

(*c*) To enable assessment of the task performance of subordinates to be made.

(*d*) To enable progress on new developments to be kept under scrutiny.

If a manager is not already receiving feedback data which is reasonably adequate for the purpose of allowing him to check his own performance and to monitor the work of his immediate subordinates, then he is accountable for raising the matter with his own manager.

MbO in the Government Service

The First Five Years

C. J. HANCOCK, Civil Service Department

Cyril Hancock joined Treasury O & M in 1946 where he was engaged on general assignment and ADP work and later as lecturer in the Training School. After six years in other Treasury divisions he returned to CSD MS in 1969 and after taking part in two management reviews moved full-time on to MbO work. He became Head of the Management and Central Support Branch in October 1973.—*Editor.*

Introduction

CSD MS has recently prepared a report summarizing departmental experience of MbO since the first project began in 1968, and drawing some lessons for the future. It is hoped that the following abridged version will be of interest to the journal's readers.

Ten departments reported their experience in 45 projects; 39 projects, involving some 12,250 managers in a work force of 93,000, were in progress or on-going at April 1973. In the other six, either an attempted installation was discontinued or no on-going system had been achieved.

The units concerned vary substantially in nature and size, and include military and civilian establishments, local offices concerned with the administration of statutory schemes, regional offices providing professional advice and assistance to industry, and central divisions concerned with accounting, training and policy formulation. The smallest project involved five managers; the most ambitious will involve about 8,000 in a centrally directed network of regional and local offices.

The variety of experience is considerable. Some projects began four years ago and have achieved a stable, on-going situation; others are still in the installation phase. Some projects are experimental and decisions to extend applications which were apparently successful in a limited area are awaited; in other cases a firm decision was taken by top management to introduce MbO on a substantive basis from the start. Some projects have relied solely on local resources whilst others have employed external consultants and received assistance from departmental management services. Some projects have been restricted to the preparation of managers' guides; in others there has been a wide range of group activity, a review of organization structure and the development of a management information system.

Practical effects of MbO

Any review of the results of such a wide range of projects must be

treated with some reserve. First, MbO is essentially a long-term agent of change and many projects are still at an early stage. Second, because any results are likely to be spread over a long period, other influences towards change will be at work and it is difficult to isolate the effects of MbO.

Tangible benefits

With these qualifications the continuing projects may be categorized as follows:

(*a*) Quantified tangible benefits—7.
(*b*) Unquantified tangible benefits—3.
(*c*) Too early to make an assessment of tangible benefits—16.
(*d*) No tangible benefits—13.

The range of tangible benefits is considerable. In one case MbO contributed substantially to a staff saving of 13 per cent.

Intangible benefits

A variety of intangible benefits were reported. Twenty-one projects reported more effective planning. This arose primarily from increased participation by lower-level managers in the planning process leading to 'a better quality of thinking' and to 'more attention being focused on priorities and on the removal of restraints'.

The reports of 23 projects said that organizational arrangements improved as a direct result of MbO. The main reasons were that 'roles and responsibilities were clarified' and that 'managers were delegating, and encouraging their subordinates to delegate, more effectively'. Some organizations benefited from structural changes which allowed individuals to identify themselves with smaller units. In others, structure has been modified to secure clearer accountability for performance and to eliminate unnecessary management levels. However, eight project reports expressed disappointment at the failure of MbO to bring about useful, and in one case expected, structural change.

Twelve project reports recorded an improvement in the flow and quality of useful management information. Fifteen reports said that communication, particularly between superiors and subordinates, had improved. However, those concerned with one project reported that the strengthening of vertical communication had weakened existing horizontal and informal relationships so much that the overall result was a reduction in effectiveness.

Twenty-five project reports mentioned the impact that MbO had on the attitudes of managers towards their work and on changes in morale, levels of job satisfaction, and the effectiveness of groups. In general the comments implied that the changes were beneficial, particularly because MbO developed a greater awareness of aims and objectives which led to managers becoming more willing to accept change and personal accountability for results. Only two projects expressed a contrary view.

Three further intangible benefits were mentioned quite frequently:

(*a*) The number of innovative ideas and the flow of improvement suggestions from lower levels increased beneficially in 10 projects. It was also felt that change was now acceptable since it came about as a result of suggestions by those most affected.

(*b*) Written guides and improvement plans reduced the adverse effect of frequent staff moves by concentrating hand-over discussions on specific activities and objectives.

(*c*) Fifteen project reports expressed the view that benefits accrued in the training, development and appraisal of individual managers. In four projects, however, it was thought that the impact in these areas was negative.

Discontinued projects

These generally favourable assessments have to be balanced against reports of six projects which failed to reach or maintain a fully on-going system.

Two reasons for failure stand out. First, in most cases the managers concerned felt either that their superiors were not seriously committed to the project or that they themselves were unlikely to benefit sufficiently to justify the effort involved. Second, departments have reported either an inadequate provision of management adviser capability from the outset or its premature withdrawal.

Other reasons for failure were: lack of experience of department and consultant; experimental project leading to lack of commitment; major reorganization during conversion period; changes of key personnel; insufficient staff association involvement or support; decision to introduce MbO imposed by higher authority without genuine support of senior managers in the unit; abnormal staff turnover; and inadequate preparation.

There is no indication that the nature of the work of the unit contributed to the lack of success. Even in these cases of failure some beneficial side-effects were achieved, and in some cases tangible savings were also achieved.

General impression

The consensus of departmental experience is encouraging in two respects. First, substantial benefits, many likely to be of a lasting nature, have already been secured. Second, many lessons have been learned from earlier mistakes and future projects will benefit accordingly. Whatever may have been the aspirations and origin of the various projects, MbO is now commonly seen not so much as a means of gaining certain selected objectives but rather as a comprehensive approach to better management in which an organization's activities are planned and controlled by reference to its essential purposes and the atmosphere is one of participation and constructive change.

The resource cost of introducing MbO

The additional costs of introducing MbO derive from the employment of departmental management advisers and external consultants. In addition a substantial extra effort is called for by the individual manager during the period when his task is being analysed.

The size and composition of a MbO team vary according to the size and nature of the organization concerned and depend on the degree of management adviser involvement in tasks other than the main one of assisting individual managers in analysing their jobs and preparing action plans. Experience suggests a basic requirement of one year of management adviser time for every 30–40 managers during the conversion period.

The cost of consultants' fees has varied according to the complexity of the installation, the degree of organizational analyses and restructuring involved and the departmental resources allocated to support them. Although the number of managers concerned has affected this cost to some extent, this influence was not substantial where sufficient departmental management advisers were available to undertake manager's guide work. Costs have varied from £50 per manager for a large installation to £100 per manager for a small installation and have risen to £200 per manager for a small installation in which a substantial degree of reorganization was required or where limited departmental assistance was provided.

These varying factors are reflected in wide variations between the costs of different projects. If some exceptional cases are omitted, however, a typical cost is likely to be in the range £120–£200 per manager, i.e. roughly equivalent to the cost of one week's management training. An important factor affecting the size of the MbO team is that the typical installation period is 18 months. The need to provide continuous support during this time may tend to put up the cost in small projects.

The additional cost within a unit arising from the introduction of MbO is difficult to estimate and it is arguable how far such costs are truly additional. However, the evidence is that specific MbO activities will take about 8 to 12 working hours of a first line manager's time and from 25 to 50 per cent more of a middle manager's time. Where the conversion process has involved extensive introductory seminars, nine days have been required for a first line manager and 18 days for a middle manager.

Some continuing management adviser capability is essential. The effort required seems to be about 1 to 1½ days per manager per year, although, where there is an unusually rapid turnover of managers, a greater contribution may be required.

Selection of units for MbO

So far the initiative in selecting units for MbO has come either from a particular manager who felt that his unit could benefit, or from centra

departmental management as part of an experimental approach. The size and complexity of most departments suggests that further projects will also be sub-departmental in character and departmental experience suggests that the following factors are important to the choice of a suitable organization.

Unless the head manager can demonstrate clearly that he believes in the worthwhileness of the exercise and that he intends himself to play his full part, his subordinates are unlikely to put real effort and enthusiasm into the often time-consuming and burdensome initial stages.

The clarity of the unit's role and the extent to which it understands the needs of those it affects and serves influence its ability to determine aims and objectives and to plan strategies with assurance. When the role is vague or subject to constant or unpredictable change, the incentive to systematic management is minimized and the difficulties of measuring performance are maximized.

However, departments have not been inhibited by the purist philosophy that, unless an objective can be measured in quantified terms, MbO cannot be practised. Although in many areas the qualitative aspects of output may have to be assessed largely in terms of value judgments, the discipline of prescribing standards of performance and of testing results against them can improve the control process.

Although there is no comparative evidence the impression is gained that MbO will have a better chance of success when the unit has a discrete task and when the top manager has a fair degree of autonomy. A clear requirement is for any constraints to be identified and for any interface problems with other organizations to be explored. Where a unit is constrained by or dependent upon support services provided by other units at about the same level it may be prudent to consider the feasibility of extending the project area to include them. Parallel projects could be considered for units that are remote organizationally but heavily interdependent.

Higher authority should take a benevolent interest in any MbO exercise, and be prepared to give its support to measures for dealing with transitional problems. Related units should also be sympathetic and willing to take part in discussions to clarify interface problems. Continuing and constructive consultation with staff associations is also important.

The organization should preferably be of sufficient size to justify the appointment of a management adviser team of at least two. In general, a suitable unit is likely to be headed at Assistant Secretary level. In a policy formulating area an Under Secretary command is likely to be preferable.

It is desirable for the structure to remain stable during the period when managers' guides are being agreed and for the following six months. Changes of the top manager can be damaging to the conversion process and if change is unavoidable it seems essential to find a

replacement who is at least well disposed to MbO. Turnover of staff during the conversion period should be minimized.

The existence of an effective management information system is helpful. Where a new information system is being installed it might be desirable to delay the introduction of MbO until it is fully operative.

Where an organization has a history of innovation and participation by the staff, or where some form of 'unfreezing' exercises have taken place, the atmosphere is more likely to be receptive to MbO. Age structure can also be an important factor; younger staff tend to give a readier welcome to MbO. This is not to say that a relatively older population is an unfavourable condition, but simply that it takes longer to gain acceptance of MbO concepts.

So far the most successful projects have been in three main functional areas: the application of law and regulations to individual cases; quasi-commercial work; and support services like accounts, training and stores. In these areas much of the output can be related to a market situation and quantified, there is scope for innovation at many levels and performance indicators can be used to make geographical comparisons.

In three other areas some success has been achieved but modified processes and paperwork are being developed: areas of central line management, where developments in management information systems can be an important requirement; the provision of professional and technical services, where performance is difficult to assess; and policy divisions, where broadness and changeability of higher aims and objectives and pressure of day-to-day business are two reasons for slow progress.

Conversion of units to MbO

Experience shows that MbO will not take root without strong support provided by management advisers. Their role is threefold: as trainers, to teach the MbO processes and to assist managers to learn new management skills and styles; as catalysts, to help to improve communication between individuals and between sub-units; and as advisers, to plan and monitor the conversion programme and to provide advice and assistance in problem-solving.

A well-balanced team of adequate size is required. Attempts to introduce MbO using a member of the unit in a part-time capacity have failed and although some projects have successfully used full-time advisers taken out of the line, most departments have found it desirable to draw people from outside as well as from inside the unit.

Most departments have used external consultants in some of their projects, usually as team leaders. Their external and independent viewpoint adds an extra dimension and they can also make specialist contributions in studies of organization structure and in the development of management information systems. In a few cases consultants have been criticized for taking too doctrinaire an approach or for

introducing unnecessary jargon. It is fair to note, however, that consultants are increasingly adopting a flexible response in which the precise MbO scheme is tailored to the needs of the situation.

It is necessary to make provision for management adviser capability after the conversion stage has been completed. This seems to be best achieved by selecting someone from the unit to join or be associated with the team from the outset who can then remain in a management adviser role in the on-going situation. He should be accountable to a senior manager, preferably the top manager or one of his immediate subordinates in a large organization, who should have a special responsibility for managerial effectiveness throughout the unit.

The conversion process needs to be carefully planned and controlled in order to ensure that interest and impetus are sustained, that management adviser resources are fully utilized and that problem areas are studied and suggestions followed up. Day-to-day control has been normally the responsibility of the team leader in close association with the top manager, but it is valuable to appoint a Steering Committee as well. Such a Committee can provide a formal mechanism for reviewing progress, a focus for discussing problems involving other units, and a means of obtaining an informed or detached view. But it is important to ensure that the Steering Committee does not become a means of delaying vital decisions which should be taken by the management team.

Continuing consultation with local staff associations has been helpful in maintaining enthusiasm and in providing a sounding board for difficulties arising below the surface. There is an increasing involvement of non-managerial staff in the development of MbO systems. Operating staff have taken part in problem-solving projects and in setting and reviewing objectives for their own working groups. Staff specialists at higher levels have been encouraged to apply a MbO approach to planning and controlling their own time, in some cases using a modified form of manager's guide.

In applying the MbO process experience suggests that a top-down approach is preferred; the essential first step being the promulgation of a clear statement of the aims of the unit and the identification of the major constraints under which it is to operate. Factors influencing the further sequence of events include the number of management levels and the extent to which unit objectives can be formulated in advance of detailed analysis at lower levels. It is important, however, in any top-down approach to ensure that junior managers are aware of the strategy and are involved as soon as possible.

Any decision to carry out a major structural change is critical. On the one hand it could be wasteful to analyse managers' jobs if their tasks are to be redistributed as part of a reorganization; on the other a long hiatus while a new structure is being worked out and implemented can lead to frustration and loss of enthusiasm. One solution is to diagnose the likelihood of a structural change before deciding to introduce MbO and to mount an organizational study in advance.

The problem of timing is accentuated by evidence that the analytical techniques associated with MbO often throw light on organizational problems. In some projects analysis has led to the re-allocation of responsibility at a particular management level in order to pinpoint accountability for performance in those activities of greatest importance to the organization. In others the analysis of overlapping or identical responsibilities in a hierarchical chain has led to the elimination of unnecessary management levels.

MbO has had the effect of exposing any widespread lack of managerial experience and skills, and this gives rise to the consideration of special programmes of training. Where the numbers involved are substantial problems of timing and phasing arise, but where arrangements can be made on the site, in-house courses can be mounted on a part-time basis.

The pace of the conversion process is also critical. The long-term aim to secure a permanent change in managerial style needs to be balanced against pressures to secure short-term benefits. Furthermore, progress in introducing the essential processes has to be sustained. This seems particularly important with a top-down approach since junior staff are often attracted to MbO concepts and eager to practise them. Maintaining the fine balance appropriate to a particular situation calls for continual monitoring of progress and problems.

The MbO process

Three training requirements are implicit in a MbO conversion programme: to create favourable attitudes towards a more participative and innovative style; to improve managerial skills especially in the analysis of the managers' jobs in terms of what constitutes effective results, and in planning for improvements; to teach the particular MbO system. These needs are being tackled in many different ways. Variables include the timing and content of formal training sessions in relation to the installation programme, the extent to which the three training needs can be integrated and the choice between individual coaching and group relations training. To assist with the problem of achieving the right balance in a given situation, Departmental Training Officers should be consulted from the outset.

A feature of increasing importance is the concept of the management team, comprising a manager and his immediate subordinate managers. In some schemes the team becomes formally engaged in analysing the aims and objectives for the unit as a whole in advance of the development of individual managers' guides; in others the management team has been used to consider selected problem areas. The use of project teams drawn from different parts and different levels of the unit, to study functional areas in depth or to search for solutions to particular problems is also reported as a feature of most MbO installations.

But the clarification of the role of the individual manager remains a

cardinal feature. The analysis of the unique responsibilities of each managerial position, the discussion and agreement of priorities and objectives with the manager's superior, and the regular review by manager and superior together of performance in achieving objectives are shown to demand a substantial intellectual effort from the managers and a large proportion of management adviser time. Effort can be wasted or duplicated in these processes, however, and departments are trying to simplify them and the associated documentation.

One idea is the use of standard guides for managers with similar roles. It has been argued that the process of detailed job analysis is a necessary educational contribution of MbO but where managers are already accustomed to receiving standard instructions for the implementation of statutory procedures they can recognize the validity of a common approach to key managerial functions. It is essential, however, that a standard guide should not be imposed upon a manager; he must be given the opportunity to challenge it in the light of his own experience and to make modifications or particular entries to suit local circumstances.

Another development is the use of unit guides. These have been used particularly in small compact parts of an organization where there are frequent and close relationships between the manager and his subordinates. In such cases the unit guide may contain an agreed analysis of the on-going role of the unit as a whole together with unit objectives to which various members of the management team will contribute.

Attempts are being made to simplify the preparation of managers' guides. In some cases where the discretionary element of the job is limited the analysis has been restricted to a clarification of the broad purpose, accountability and authority of the position and a statement of key tasks. Where it is proving extremely difficult to define realistic standards of performance or to obtain control data a selective approach to the elaboration of individual key tasks is being considered. Finally, in a number of projects priority is being given to the development of improvement objectives and plans ahead of a full analysis of recurring tasks. These developments underline the adoption of a flexible approach, with different solutions in different situations, rather than one rigid or universal methodology.

Allied to the problem of paperwork is the difficulty reported in many areas of developing cost-effective management information systems. Prolonged search for quantifiable performance indicators is now being modified in many projects, at least during the initial stages. Similarly there is no longer an automatic assumption that a functional costing system will always bring commensurate benefits. The test of value for money is being applied both to the determination of performance standards and to the design of control data systems.

In some projects where the development of a management information system is important it has been suggested that it would have been preferable to set up an information system in advance of installing

MbO. Without it there has been difficulty in gaining managers' enthusiasm. However, in some cases management information needs have emerged fully only as part of the MbO analysis. The need for a common management information system, using standard data, is acute where the same task is divided geographically among area offices.

Conclusions

Some departments are cautious about evaluating the benefits obtained from MbO and have suggested that a lengthy period should elapse after completion of the conversion process before one can assess how far the concepts and practices have been integrated into the system. Nevertheless, the evidence suggests that most of the projects started in the period 1968–71 have reached and are maintaining an improved system and style of management.

Most departments seem to have reached a watershed. Generally encouraging results are being absorbed and future strategies are being considered. Factors of major importance in their deliberations are resource implications, pressure of business and turnover of staff as well as their assessment of their own MbO experience of those areas of work where the most beneficial results are likely.

MbO is developing as a flexible instrument which can be tailored to the needs of a particular organization, but there remain certain common aims:

(*a*) An on-going system of accountable management, with an emphasis on outputs and performance assessment, and with regular planning and review cycles.
(*b*) Integration of the objectives of the organization with those of the individual manager.
(*c*) Continual participation of managers and staff in the development of the organization and its management.
(*d*) An open and innovative climate.

MbO implies certain special features of application:

(*a*) A degree of formalization of planning and control processes which involves every manager in a regular review and revision of purpose and activities for which his accountability is clearly defined.
(*b*) A substantial contribution from every manager, in commitment and time, during a conversion period.
(*c*) A substantial contribution from a balanced team of management advisers.

Experience shows that the full benefits of MbO will not be realized unless:

(*a*) Top managers believe in the idea and are seen to be enthusiastic in its application.
(*b*) Higher management, related units and the staff side are co-operative.

(*c*) Most junior managers understand and practise the concepts and procedures; and involve their operating staffs in developing objectives and suggestions for improvement.
(*d*) Strong management adviser support is maintained until an ongoing system clearly exists and, on a more limited scale, even when such a system has been achieved.
(*e*) The conversion programme is carefully monitored, preferably by a Steering Committee chaired by the head of the organization.
(*f*) Early and substantial efforts are deployed to provide any essential management information needs.
(*g*) The pace and depth of changes are designed to secure long-term improvements in individual and organizational effectiveness.

In any managerial situation the concepts and framework of MbO can in theory be applied. An important question, however, is whether it is economical in any particular case to use this comprehensive approach. All organizations are already managed to some degree of effectiveness and all are continually subjected to piecemeal pressures to improve. The test that probably needs to be applied is whether the cost and effort of MbO are justified by its special and longer-term contribution to the attainment of more effective and more accountable management. In the last analysis any decision to introduce MbO or any verdict upon it is very much a matter of judgment.

Author's postscript

This second condensation of the enormous wealth of material contained in 10 departmental and 45 project reports necessarily omits much interesting detail. I hope, however, that it retains their essential wisdom. I should like to conclude with a personal commentary based on nearly 20 years management services experience and close involvement in the last few years with MbO developments in the Government Service.

We still have a long way to go; some areas can benefit much more from MbO than others; it can be misapplied. But a combination of experience in O and M, training, personnel and line management convinces me that MbO, pragmatically and adaptively applied, offers the best and most comprehensive vehicle we have yet discovered for the introduction and maintenance of an effective style of management.

I have no doubt that departments will consolidate and extend their application of MbO in the light of their collective experience. However, many people still have doubts, reinforced by some dramatic accounts of apparent disasters in USA, both of the stamina of MbO and of its effectiveness in some areas where there has been little or no experimentation. With the Editor's permission, I invite them to bring their fears and problems out into the open in letters to him. We can now answer—if not entirely resolve—them from a solid core of hard practice.

Working in Partnership with Management Consultants

R. S. MATTHEWS and R. J. MAXWELL

Mr. R. S. Matthews is now an Under Secretary in the Department of Health and Social Security (DHSS). Mr. R. J. Maxwell is a Senior Associate of McKinsey and Company, Inc. —*Editor.*

Introduction

There is nothing new about reviewing the policy, organization or administration of central and local government. But it is relatively novel to involve management consultants, and it is only recently that it has been done on any large scale. In 1964 the Civil Service commissioned only three consultant assignments, costing £20,000 in all, but by the end of 1972 the total had risen to about 300 assignments involving 17 Government Departments and over 70 outside firms, at a cost of around £4·8 million.

Such studies may be aimed at improving the general quality of government through organization change or the introduction of new techniques, or at resolving a particular policy problem. They may be undertaken by a team composed solely of management consultants, or by a mixed team of civil servants and management consultants with a varying balance of the two.

One of the largest assignments so far undertaken was one in which the authors served as the senior full-time members of a mixed civil servant/management consultant team working for a Steering Committee on a wide-ranging review of the health and personal social services sides of DHSS. Although no two studies are identical, we believe that our experience has some useful lessons for others commissioning or carrying out assignments in which management consultants are involved. Our purpose in this article is to summarize these lessons, drawing also on our knowledge of similar assignments.

Our overall conclusion is that a full partnership between civil servants and management consultants is a good way to carry out certain types of study. Each has a particular contribution to make. The two together can achieve more than either alone, provided that they form into a single team and arrange their work well. We will suggest some guidelines for doing this, after briefly describing the study and the recommendations that resulted from it.

The study

The study was very broad in scope and of substantial importance for DHSS. The terms of reference were to review the organization and operation of those parts of DHSS concerned with the health and

REVIEW TEAM DEFINITION OF DHSS WORK STRUCTURE

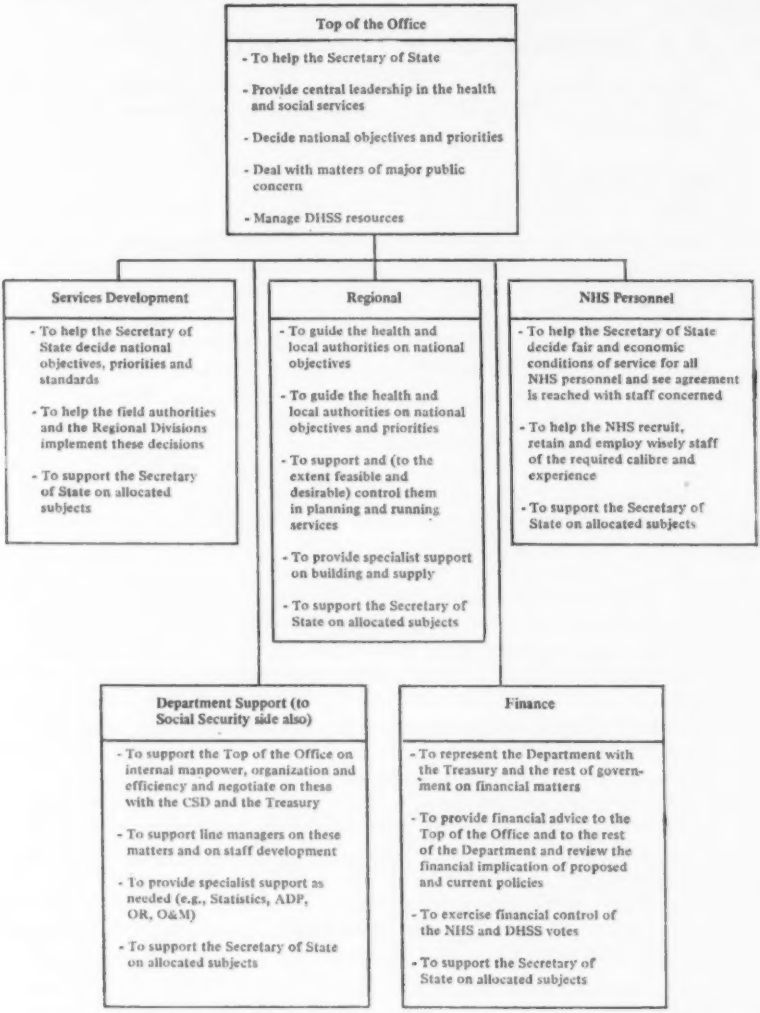
Top of the Office
- To help the Secretary of State
- Provide central leadership in the health and social services
- Decide national objectives and priorities
- Deal with matters of major public concern
- Manage DHSS resources
Services Development
- To help the Secretary of State decide national objectives, priorities and standards
- To help the field authorities and the Regional Divisions implement these decisions
- To support the Secretary of State on allocated subjects
Regional
- To guide the health and local authorities on national objectives
- To guide the health and local authorities on national objectives and priorities
- To support and (to the extent feasible and desirable) control them in planning and running services
- To provide specialist support on building and supply
- To support the Secretary of State on allocated subjects
NHS Personnel
- To help the Secretary of State decide fair and economic conditions of service for all NHS personnel and see agreement is reached with staff concerned
- To help the NHS recruit, retain and employ wisely staff of the required calibre and experience
- To support the Secretary of State on allocated subjects
Department Support (to Social Security side also)
- To support the Top of the Office on internal manpower, organization and efficiency and negotiate on these with the CSD and the Treasury
- To support line managers on these matters and on staff development
- To provide specialist support as needed (e.g., Statistics, ADP, OR, O&M)
- To support the Secretary of State on allocated subjects
Finance
- To represent the Department with the Treasury and the rest of government on financial matters
- To provide financial advice to the Top of the Office and to the rest of the Department and review the financial implication of proposed and current policies
- To exercise financial control of the NHS and DHSS votes
- To support the Secretary of State on allocated subjects

Figure 1

personal social services, covering the work of some 4,000 administrative and professional civil servants, from Permanent Secretary level downwards. The review was decided upon in light of the recent reorganization of the personal social services and the impending reorganization of the National Health Service. The decision was also influenced by recognition of the problems of sheer size in departments like DHSS.

The study was carried out under the guidance of a Steering Committee, responsible for approving the team's terms of reference, guiding and supporting its work, and considering its recommendations. The Steering Committee was chaired by Sir Philip Rogers, the Permanent Secretary, and was made up mainly of senior departmental officers. It also included Dame Isabel Graham-Bryce, then Chairman of the Oxford Regional Hospital Board; Mr. R. Thornton, Town Clerk of Leicester; Sir Richard Meyjes,* one of the team of businessmen seconded to the Government; an Under Secretary from CSD and Mr. H. Strage, a director of McKinsey.

The review team itself comprised four elements:

(*a*) An Assistant Secretary and a Principal, both with broad administrative experience on the health side of the Department (but no management services experience). The Assistant Secretary was Chairman of the review team.
(*b*) A DHSS group of MS specialists headed by a Principal.
(*c*) A Senior Principal, who was also a MS specialist, from CSD.
(*d*) Consultants from McKinsey under the direction of Mr. Strage who had other projects in hand at the same time. The full-time McKinsey contingent increased from one to three during the study.

At its maximum, the team had about 15 members, including secretaries. After the preparation of the team's final reports in June 1972, many members withdrew from a full-time role. The Assistant Secretary, the management services Principal, and a small team remained for a further six months as a temporary branch in the Department, with the management consultants available to advise when required. Early in 1973 the branch was wound up, and responsibility for implementation transferred to the appropriate permanent branches.

Between the Steering Committee and the review team there was provision for a study group of DHSS officers to advise the team. For reasons explained later this was discontinued during the study.

The team's recommendations

Before turning to the lessons learned from our joint experience we will describe, very briefly, the recommendations which the team developed.

The team designed an organization to carry out six main groups of functions: Services Development; Regional work, including Building and Supply; NHS Personnel work; Finance; Support Services; and the Top of the Office. *Figure 1* illustrates the purpose of each group. We

* Sir Richard resigned in March 1972.

recommended that the main professional disciplines in DHSS (medicine, nursing, social work, administration and building) should all be organized according to this common definition of the work structure. This did not mean that every profession needed to be represented in every group, but that where its help was needed it should be represented and should be so organized as to relate easily to the other disciplines involved.

Compared with the previous DHSS organization, these recommendations meant a firmer regional orientation to part of the organization; a stronger element dealing with NHS personnel; a larger emphasis on research and planning; and a move away from services (hospitals, local authority social services, general practice, community health services) as the *primary* organizing principle. By defining a common work structure, we aimed at improving co-ordination and staffing balance among different disciplines working on related tasks.

With respect to working methods, the review team recommended a new planning and analytic process to help the Secretary of State decide national priorities for the development of services; to help the field authorities take action in light of their local situation and of the Secretary of State's guidance; and to strengthen co-operation between the Department and the field authorities. The team felt that such a process could also clarify the Department's decisions on its own work priorities and deadlines, and provide a framework for coming to grips with important problems. The team suggested a very selective use of controls over the NHS and local authorities, and called for further work on the information needed to assess the performance of services.

These recommendations on working methods were intended, first, to strengthen the partnership between the NHS, the personal social services and central government, and second, to help people set priorities and act on them, rather than 'living out of the in-tray'.

Basically, all the recommendations were accepted. The reorganization has taken place and the planning process is being introduced. But much remains to be done and it is obviously too early to assess the final results.

The lessons learned

It is, however, not too early to draw some lessons about the commissioning and conduct of studies involving mixed teams of civil servants and consultants. The study taught us some valuable lessons:

(*a*) Staff the study with the smallest team that can contain the specific skills and experience required, and assign roles clearly within it.
(*b*) Avoid multidecker steering arrangements.
(*c*) Plan the study in outline from the beginning, establishing phases with differing work requirements, and do not be afraid to replan.
(*d*) Give as much scope as possible to individual team members while building team unity.
(*e*) Carry the team's effort through into implementation, but place

the main implementation responsibility on senior officers outside the team.

A small balanced team

It is asking for trouble to compose a team as though concocting a gastronomic delight, with dashes of this or that ingredient. Unless the team is the smallest and most homogeneous that can do the job, it will fail to develop unity.

Management consultants should be included only if they provide the best source of some of the skills, perspective and experience needed by the team. To earn their place they must bring objectivity of view. They should also bring experience of carrying out similar assignments to a tight time-table elsewhere. And they offer a short-term source of relevant skills, without diverting people from other essential work. Sometimes it is best to use them on their own, giving them sole responsibility for the study. But mixed teams should be considered where the Civil Service has people available of the calibre required, with close knowledge of the work to be studied, and where Civil Service commitment to the study's conclusions is important. Our study was a case in point. DHSS had never carried out such a broad review and it wanted to take an objective look at itself through the eyes of an outsider—yet any outsider needs guidance to understand Civil Service attitudes, working habits and constraints, as well as a Department's current organization and working methods. Also, it was imperative that DHSS staff should have enough confidence in the team to voice its worries freely and bluntly to someone in it, preferably a staff colleague. And much detailed and time-consuming work on long-term implementation could best be done by DHSS people who had participated in producing the team's recommendations.

On the Civil Service side, as already noted, there were three somewhat different elements in our team. The Assistant Secretary and Principal, with broad health experience, were well placed to provide the essential familiarity with the Department's work and its staff. During the study we needed more people with this experience than we had, particularly when the team was working on many divisions in parallel.

The DHSS management services Principal and his team provided the team's main element of continuity, thanks to which the major structural changes were made comparatively smoothly on a single date in December 1972. During the analytic stage of the study, however, we failed to make full use of the departmental management services staff. The initial DHSS idea was to use them on detailed sub-assignments such as mapping current workloads and staffing, and more work of this sort would have been useful at the implementation stage. But, in the earlier stages we felt that such sub-assignments were less useful than a closer partnership between one or two such officers and one of the team's more senior people, working on a major problem such as the

tasks and structure of DHSS personnel divisions. In retrospect, it was essential to have the management services Principal from the beginning for his contribution to planning and problem-solving, and so that he completely understood the reasoning behind the team's conclusions. But, the support under him should have been at its most numerous for the implementation phase, instead of early in the study.

The CSD Senior Principal, on the other hand, could neither provide a close knowledge of health policy work nor participate in long-term implementation in DHSS. But he could and did strengthen the links between the team's thinking and that of CSD, and he enabled CSD to have direct experience of an experimental study.

There could have been a danger of confusion of roles in the technical leadership of the project between the consultants and the Civil Service management services officers. Inevitably management consultants have their own approach and style, and there will be times when Civil Service management services specialists would do things differently. It is, therefore, essential that ultimate responsibility for technical leadership is clear. In our case this was the management consultants' responsibility, and all other members of the team loyally accepted the position.

In short, it is important before the start of a study to work out the proper balance of skills and experience on the team. One can then build a full and effective partnership, defining clearly what is expected from each team member, so that individuals will understand their own roles and the team leaders can assign tasks accordingly. Such a partnership certainly developed on our study, with civil servants and management consultants making the contributions summarized in *Figure 2*.

Simple steering arrangements

As we have noted, it is dangerous to overstaff a study team. A Steering Committee, on the other hand, may need to incorporate a wide variety of interests. It can safely be allowed to do so, provided that it is not unwieldy or allowed to spawn intermediate consultative layers between the Steering Committee and the study team.

Again, the guidelines should be simplicity, clarity of roles and the minimum membership required to do the job. Our own Steering Committee, which had 18 members, was not too big for general discussion. There was a free and useful exchange of views at its meetings.

Under the Steering Committee a small Study Group was established before the study started, comprising some members of the team (in practice, all could attend) and some departmental officers of Assistant Secretary level. Although its members provided substantial individual help to the team on request, as a group their role was ambiguous. Did the Study Group have the right to consider all team conclusions and recommendations before these went to the Steering Committee or did it not? Did it have veto or amending power? If not, for what was it responsible? The Study Group might well have become a screen, or scrambler, between the team, and the Steering Committee. It might

SUGGESTED ROLES OF CIVIL SERVANTS AND MANAGEMENT CONSULTANTS WORKING IN PARTNERSHIP

Civil Servants	Management Consultants
Give the team overall awareness and perspective; see that it does not waste time on problems that are more apparent than real, or on impractical solutions	Satisfy themselves that the team studies the problems which really are the most important when seen objectively
Guide the team on sources of information and opinion, whether these are individuals or records	Take the lead in planning the study and ensure the team draws on relevant problem-solving experience outside as well as inside the Civil Service
Ensure that the management consultants really understand what civil servants outside the team are saying, and vice versa	See that solutions are not overlooked merely because they are unfamiliar in the Civil Service
Ensure that the team is fully confident that its recommendations are appropriate and feasible in the context	Ensure that the team's work, including its recommendations and reports, satisfy their standards of quality and objectivity
Provide more continuity into implementation than the management consultants can do	Keep closely enough in touch to assist effective implementation

Figure 2

have caused delays, multiplying formal meetings and the drafting and redrafting of papers, with the risk that papers reaching the Steering Committee would not have contained the team's views. The Study Group was therefore soon discontinued and the team, while consistently consulting departmental staff before putting ideas to the Steering Committee, did so informally and on its own responsibility.

Although there was occasional ambiguity on the point, the Steering Committee's real function—a most valuable one—was to *advise* the team and the decision-makers rather than actually make decisions. The responsibility for decision rested with the Secretary of State, the Permanent Secretary and other Government Departments.

A Steering Committee is no substitute for close involvement by whoever bears the main responsibility, under Ministers, for acting on recommendations. This person must be available to meet the team when either he or the team feels that guidance is needed, and must carry overall responsibility for implementation once he has heard full discussion of the team's recommendations and is convinced on a course of action. For an overall review of a Department's organization and operation, this role is likely to be filled by the Permanent Secretary; on other occasions, by a less senior civil servant. For a strategy or policy study the choice will depend on the nature and scope of the assignment, and sometimes Ministers may take a close personal interest. In any case, it is a mistake to assign the responsibility to anyone who is less than

THE STUDY HAD FIVE DISTINCT PHASES.....

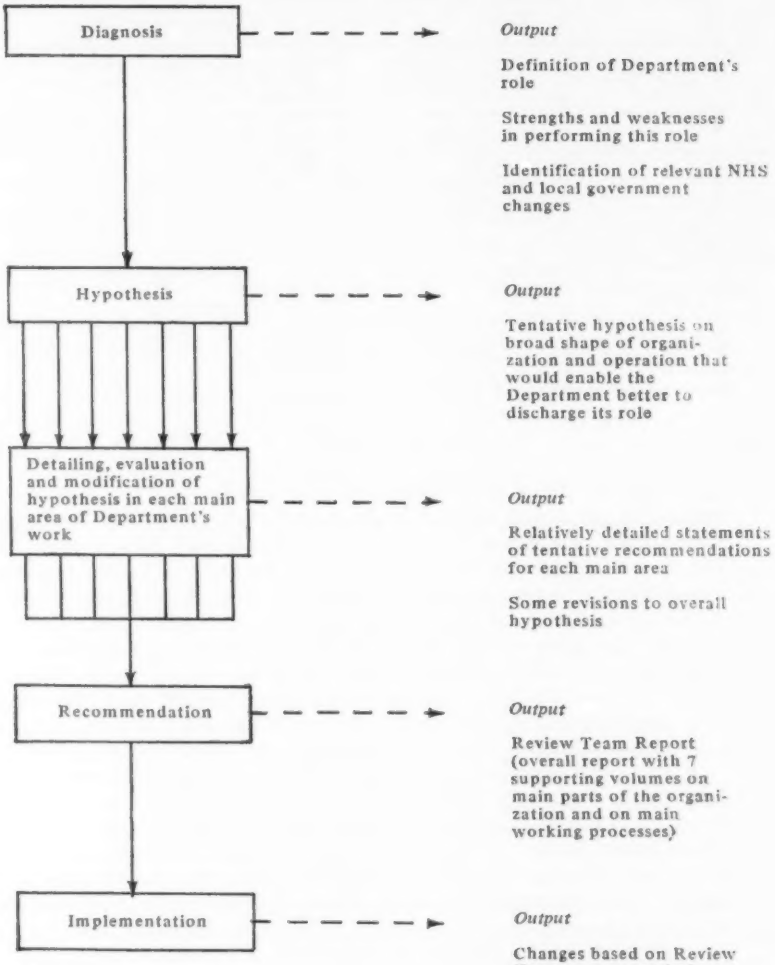
Diagnosis
Output
Definition of Department's role
Strengths and weaknesses in performing this role
Identification of relevant NHS and local government changes
Hypothesis
Output
Tentative hypothesis on broad shape of organization and operation that would enable the Department better to discharge its role
Detailing, evaluation and modification of hypothesis in each main area of Department's work
Output
Relatively detailed statements of tentative recommendations for each main area
Some revisions to overall hypothesis
Recommendation
Output
Review Team Report (overall report with 7 supporting volumes on main parts of the organization and on main working processes)
Implementation
Output
Changes based on Review Team recommendations

Figure 3

wholeheartedly convinced of the need for and purpose of the study, or not well placed to act on findings he supports.

Phased and flexible plan

In a study as wide-ranging as the one we undertook one must chart a course and regularly review progress. The other theoretical possibilities —collecting all the relevant data first and then structuring them, or relying on one's natural sense of direction—are totally impractical in a big study. However, there is also the opposite danger of treating the study plan as an end in itself. With a study lasting 18 months to the report stage and covering all central government functions in relation to the health and social services, we were faced with the dilemma that we had to have a plan but that the plan was bound to be wrong. The only sensible way out of this dilemma is to make a plan, work to it, and not hesitate to change it whenever necessary.

The overall plan should propose a logical sequence of steps or phases, identify what each phase should achieve, and provide estimates of timing. (The phases in our study are shown in *Figure 3*. They will differ in other studies, at least in content and balance.) Each phase of the overall plan needs its own detailed plan. Since the work to be done varies substantially from one phase to the next, the type of plan required will also vary.

In the first stage, for example, we explored the Department's role in relation to the health and social services, and the ways the role might change with NHS and local government reorganization. We sought to discover what senior people, both in DHSS and in the health and social services, regarded as the Department's strengths for the job, and how they thought its weaknesses might be overcome. Interviews within and outside the Department, collection of selective data and 'brainstorming' about the information gathered, went on more or less simultaneously. The team members had to be constantly in touch; sometimes three team members attended the same interview so that they could all discuss conclusions arising from it. In this phase the team needed to work together very closely so as to develop mutual understanding and bridge the many important differences between Civil Service and management consultancy attitudes. So the plan for this phase was unified and homogeneous, built around interview dates and data collection tasks. The end products we needed were concise statements supported by the evidence for them; for example, a brief summary of the Department's existing strengths and weaknesses. A large team was not required, except in preparation for later phases.

In contrast, something very different was required for the third phase. Here we needed to fan out to cover the ground. Having developed in Phase 2 a tentative idea of the overall shape of our recommendations, we now had to develop and discuss these in detail with the individuals concerned—a massive task, handled by assigning reasonably coherent blocks of work to team members, who were expected to

exercise initiative in studying their block in depth and developing answers they were prepared to defend. There was relatively little need for close co-ordination, although most of the team wanted to maintain it, and we tried—with limited success—to do so through team progress meetings. It was necessary, however, for the team leaders to guide the whole dispersed effort, intervene when dissatisfied with the answers emerging or the speed of progress, and liaise with team members working in different areas. A separate plan was therefore required for each area of work.

In retrospect, we judge our planning to have been adequate rather than outstanding. Starting with a reasonably good vision of the whole loosely defined study, we were able to plan its phases in logical sequence. We recognized certain differences in the study phases sufficiently clearly to use different planning methods. For example, we followed a more highly organized approach when, in the third phase, the team was most widely deployed, and then made limited use of a computer-based network. We completed the review on schedule, developing recommendations in which we have full confidence, and gaining acceptance for them. But, with the benefit of hindsight, we could have done better. Here are some suggestions we offer to other team leaders in the light of our experience:

- Early in the study, arrange for the consultants to explain their plan and approach to the civil servants, and so build mutual understanding and confidence. Probably they will stress flexibility within a simple logical framework, and each individual's responsibility to see that his part of the plan makes sense to him, to suggest changes when appropriate and to consider agreed results and schedules as a personal commitment.
- Pay special attention to transitions between study phases. It is very easy to lose momentum and waste time by not foreseeing the transitions soon enough. We did this at least once, in the transition from Phase 2 (formulation of an overall design) to Phase 3 (detailed evaluation and development).
- Keep alert to the need for changes in individual roles and to their implications. For example, we personally found it hard to shift from the interviewing of the first phase, to guiding a large, dispersed team in the third phase, without involving ourselves too much in detail. There is one problem of role definition to which we can suggest no wholly satisfactory answer: different study phases require different sizes of team and yet people of the necessary calibre do not want to be brought in only to those phases that justify large numbers. Intelligent people can hardly be expected to work enthusiastically on detailing or implementing ideas that have been developed without their participation. Nor can they begin to work effectively without considerable time to pick up the threads. There is no perfect answer here, but on balance we would advise the pattern we used of a single team throughout, even at the cost of some overstaffing in the early stages.

- Allow enough time to prepare reports, and take the trouble to write them clearly. Many public servants set a high standard for their own and other's writing; and in a large public organization, written reports are the team's only way of reaching many of those who need to understand their reasoning and recommendations. This does not, however, mean an endless acceptance of drafting amendments. The final reports must be the team's responsibility in both content and expression.
- Maintain flexibility in approach and in formulating conclusions. Although we argued strongly for our conclusions towards the end of the study, we were in fact prepared to change them when convinced we were wrong. Sometimes changes were disturbing for the team, but they added substantially to departmental acceptance. The Steering Committee helped us to maintain flexibility while working to plan. We often used Steering Committee dates as working deadlines, but the Steering Committee never objected to our cancelling a meeting if we needed more time to produce a satisfactory paper. Also, they were willing to accept interim papers as working documents. This is extremely important. The team never put forward a paper we were unprepared to defend as a working document. But we did not finalize recommendations until the final reports, which contained many revisions and refinements of earlier ideas, and were produced in a single prolonged burst of writing during Phase 4.

Individual scope

As already noted, in Phase 3 of the study (*Figure 3*) the team had to be broadly deployed without loss of unity. Fortunately, by this time the team had a clear grasp of our main aims and how they might be achieved. Moreover, from this point on to the preparation of the final reports, the work broke down into reasonably coherent blocks. After extensive discussion about what reports were needed and how they would relate to one another, each report was drafted by the person who had done the work leading up to it. As team leaders, the two of us reviewed each draft, as did selected departmental officers, and all the reports had to be read in parallel to ensure a proper fit between the parts and the right tone and balance of the whole. But the responsibility for the final version rested in every case with its author. The results were much better than they could have been had the report been conceived and produced, as it were, in committee.

One mistake we made in deployment of the team was partly forced on us by shortage of people, especially of departmental staff with a policy background. In general, we could afford to assign only one person to each main block of the Department's work, for example, to the divisions dealing with health and personal social services on a subject basis. In effect this required us to assume that all individuals could by then perform the twofold role we have described—of external objective assessment striving for radical improvement, and internal guidance on appropriateness and feasibility. This was expecting too

much and, although members of the team did remarkably well, it would have been more satisfactory to pair, for each area of work, a consultant (or management services officer of consultant calibre) with a civil servant experienced in the Department. Such an arrangement would have been well worth the modest additional cost.

While defining members' roles and giving them maximum scope, it is vital to build a strong sense of team identity. When the team reports, every member should feel that its recommendations are as good as the whole team can make them and that his own contribution to them will be supported by his team colleagues and, especially, its leaders. Team size, structure and leadership are vital factors in achieving this unity but so is the choice of team members. Every outside member needs to be sensitive to personal reactions and political constraints; every insider needs an aptitude for analysis, coupled with an open mind that will not recoil at radical recommendations. In short, each partner must be sensitive to the other's role, as well as skilful in his own. In this respect, we feel that our study was exemplary. Every member of our team proved his firm commitment to the purpose of the review, and each fully supported the others.

Implementation responsibility

The team working on an assignment does not by itself produce results. Commitment and follow-through from a much wider group are required. These will be forthcoming only if, understanding what the team is striving for, the wider group takes up responsibility for interpreting and carrying it out. Yet continuing co-ordination is also needed so that interpretation in the implementation phase maintains the thrust and logic of the team's ideas.

We believe that this is working in the implementation of our study. One essential was to discuss with as many people as possible the team's ideas as they developed. Another was the team's determination to write comprehensible reports. In a smaller organization, where such reports merely serve to record what has been agreed and implemented, they justify less effort. But in our case they were one of the chief means of getting things done, communicating the team's ideas to the wide group, and explaining the recommendations. Finally, the team itself maintained a continuing presence, with the backing of an Implementation Committee chaired by the Permanent Secretary, to provide co-ordination and ensure that the overall logic was not lost.

Once the reports were written, discussion and co-ordination were led by the departmental members of the team. Here the Department's management services staff were indispensable. The management consultants maintained contact, and were available when needed.

Summary

Any substantial review of public policy, organization or administration takes time and effort. In the short term it is likely to interfere with other work, arouse anxiety, and generate some degree of opposition.

So, in the words of the Book of Common Prayer, reviews are not to be undertaken unadvisedly, lightly or wantonly. The time, the cost and short-term upset involved should be carefully estimated in advance and weighed against the potential benefits.

Sometimes a review can be done perfectly well by a team of civil servants. Sometimes it is best to commission outsiders and give them sole responsibility for finding appropriate solutions, as in a standard management consultancy assignment. And sometimes a partnership between the two offers the best course.

Asking for outside help has some obvious disadvantages. All outsiders (whether from CSD, management consultant firms or elsewhere) take time to understand a client department and to get to know and be known by the people in it; their presence will probably cause anxiety in the organization; and outside help costs money.

On the other hand, outsiders can bring valuable skills and experience. For certain types of study no organization, however large, will have much internal experience. Also most organizations are so stretched by their normal work that it is exceedingly difficult to take enough suitable people away from their jobs for an extended special assignment. Finally, the objectivity and independence of outsiders are likely to be of particular value in a situation where traditional assumptions need to be questioned and where the recommendations are likely to be controversial. It is sometimes said that outside consultants seldom come up with ideas that were not already known in the organization, but many ideas that are already known have never been adequately thought through, weighed against other alternatives, effectively presented or broadly accepted.

In our opinion, the best answer will often be a partnership: the disadvantages of employing outsiders can be avoided and the advantages can be secured by using a mixed team, provided that it can be drawn together into a united, effective whole. The inside members provide an intimate familiarity with the workings of the organization, together with a healthy scepticism about the feasibility of radical change. They can also help enormously to build trust and foster frankness between the team and officers of the client organization by giving the latter an 'open line' to someone on the team. Moreover, Civil Service acceptance, understanding and implementation are more easily achieved when client officers recognize that the team's ideas, even if initially distasteful, have the backing of their own colleagues.

However, gaining the full advantages of a partnership is by no means easy. It requires careful selection of people, goodwill from all concerned, and a fair amount of hard work. It can be greatly helped, we believe, by using the guide-lines we describe.

Anyone embarking on a civil servant/management consultant partnership should be prepared for some problems. But these can be overcome. And the results can be better than either partner could achieve on his own.

Career Development—The Scope for Individual Initiative

G. A. MAWER, Civil Service Department

Allen Mawer is an officer of the Australian Public Service Board currently serving on exchange in one of the Personnel Management Divisions of CSD. In this article he expresses some personal views on the scope for individual initiative by the civil servant in the development of his own career. —*Editor.*

In its 1970 report (*Fulton: A Framework for the Future*) the Joint Committee of the National Whitley Council set out four objectives in the sphere of what it called career management:

(*a*) the effective deployment of staff to meet the needs of the Service and their unimpeded movement from one kind of work to another;
(*b*) the identification and development of talent and the improvement of reporting and promotion procedures;
(*c*) the development of methods that both meet the needs of management and are seen to be fair by the staff;
(*d*) economy of operation.

The use of the phrase 'career management' rather than 'career development' is significant, as the report makes clear when it goes on to say that the main responsibility for career development in the Civil Service must be with management. The individual's responsibility for the development of his career is to be subordinated to that of management. But, the report continues,

> Within this framework we attach great importance to giving each individual opportunities to influence his own career. One method, widely used in industry and by some other civil services, is to advertise vacancies. The extent of this practice is comparatively narrow at present, and the procedures are apt to be slow and cumbersome; but we are considering whether there is scope for more of this. We also intend that there should continue to be opportunities for those who are already civil servants to enter competitions for appointments to other groups and to training grades. In addition, all individuals should in any case have the opportunity from time to time of making their preferences known to the management of their Department. It will not always be possible to meet these preferences. But management, in developing careers, should know what they are.

One civil service with such a vacancy advertising system is the Australian, which embraces about a quarter of a million staff.

The Australian Public Service operates a position classification system wherein an officer is paid according to the classification of the

post he occupies. He advances his career by securing promotion to a post with a higher classification. Generally speaking, the Australian Public Service Act requires that selection for promotion will be on the basis of 'relative efficiency' for the particular post in question, i.e. the best man for that job. Seniority is taken into account only in the event that two or more officers are considered equally efficient.

When a vacancy occurs, as a result of movement of the occupant or creation of a new post, the department can:

(*a*) select and promote, or transfer, the most suitable officer from a known field, usually within the department;
(*b*) call for applications from officers in the department, or in selected areas of the department, usually by office notice;
(*c*) advertise the vacancy throughout the Service in the weekly *Australian Government Gazette*;
(*d*) or, in the small number of cases where it appears that a suitable candidate may not be available within the Service, seek the permission of the Public Service Board to advertise the vacancy as open to applications from persons outside as well as inside the Service.

The department will make its own judgment, based on its knowledge of the field, about which of these courses it will follow. Gazettal is the most normal and most common method, followed probably by the office notice method. A gazetted advertisement will include a brief description of the duties of the position and the qualifications, if any, required. Where specific qualifications are not prescribed reference to qualifications thought desirable may be mentioned, but care is taken to ensure that the description is not unduly restrictive. Assessment of suitability for promotion will usually be made by an *ad hoc* departmental selection committee proceeding by interview. Selection decisions are generally based on assessment of past work performance, interview performance, and on enquiries directed to past or present supervisors.

Departments are required to notify all promotions provisionally in the *Gazette* and these (but not transfers) are subject to appeal by any permanent officer who considers that he is more entitled to promotion to the vacant office on grounds of either superior efficiency or equal efficiency and seniority. It is not necessary for an appellant to have been an applicant for the post. Promotion Appeals Committees comprise a Chairman appointed by the Public Service Board, a nominee of Permanent Head of the department, and a nominee of the appropriate staff association.

The implications of this competitive promotions system were outlined by Sir Frederick Wheeler, then Chairman of the Public Service Board, in an address to the Australian Institute of Management in 1969:

> There is, first of all, no single, central, authoritarian assessment of management

potential. Instead, our system provides constant opportunities for officers to present their claims for advancement and, over their career lifetime, to have these claims considered by a variety of assessors. Putting it another way, all aspiring top managers and administrators within the Service must make the effort to compete vigorously and constantly for promotion.

In the competition for each particular vacancy, the assessments have as their main focus the officer's proven record of job performance and are based in large degree on the evidence from his past record of his capacity to cope with the higher responsibilities of the job in question. Without in any way derogating from the importance given to general abilities and educational attainments, criteria in making selections are, to a large degree, drawn from the specific requirements of the vacancy under consideration. Thus, there is nothing in our system which will permit an officer to climb the promotional ladder because of assumed general abilities which are not demonstrated by 'on the job' performance. . . .

One might criticize this system as being one excessively orientated towards demonstrated technical competence for particular jobs. . . . It is our experience that this approach does not result in a neglect of general capacities.

One of the measures of general ability that is applied in assessing an officer is the standard of education he has achieved. I should like to emphasize, however, that apart from specialist areas, there is no barrier to the promotion of an officer with secondary school education only through all levels to the highest posts of the Service. . . . The open nature of the Service in this respect has been of inestimable value in the past and I believe that it will continue to play its part in the future.

The second important consequence of our system is that the aspiring manager is constantly assessed not in a theoretical staff reporting sense but in practical competitive situations in which both management and staff play their part and in which both have a vital interest in ensuring the right result.

Thirdly, the system leaves it largely to the initiative of the individual to decide in which area of work he competes for promotion. This we believe to be an important virtue in that the officer himself plays a considerable part in finding the area of work for which he is best fitted. Because the officer has the possibility of competing for a wide range of vacancies in any of the 27 Commonwealth Departments, his ultimate destination is very much his own decision, providing, of course, he can convince the duly constituted management and staff authorities that his own assessment of his capability and suitability is accurate.

Interdepartmental promotion is common. In 1971, 14·9 per cent of all promotions in the clerical/administrative group (roughly analogous to the Administration Group) involved a change of department. For the Second Division (analogous to the Open Structure but including Assistant Secretaries) the figure was 10·4 per cent.

It has been asked how departments, let alone the Public Service Board, could in any sense manage careers in such a context and it is true that departmental influence over individual careers is limited: transfer might be sometimes used to broaden an officer's experience, but promotion will always be subject to the appeals system. However, departments can exercise a large measure of control over the careers of their officers as a whole by means of the weights their selection committee attach to the formal qualifications required for posts. Preference might be given, for example, to those with experience of the

work of the department, or, other things being equal, to graduates. As only one provisional promotion in four attracts appeals, and as only one in eight of those promotions appealed against is upset, the department will in the main get the sort of people it wants advanced to the sort of posts it wants them in.

The system has its disadvantages for both management and staff:

(*a*) The advertising—application—selection—appeal procedure can be very time-consuming. It can sometimes take months to fill a post.

(*b*) When an officer reaches his career plateau there is a tendency for him to stay in the post to which he was last promoted. The ethos of the system is such that he is more likely to continue competing unsuccessfully for promotion than to look for a change of job at his own level.

(*c*) The bright youngster is able to secure promotion after promotion in the early part of his career without staying in any job long enough to make a real contribution to it or being much developed by it.

With an eye to UK practice D. N. Chester has summed up* the Australian system as follows:

(*a*) It was able to divide employment into categories and sub-groups while maintaining, in theory at least, the right of movement between them.

(*b*) It placed career initiative in the hands of the individual and put no barrier in the way of professional officers moving to administrative work.

(*c*) Mobility was achieved without each post being linked to every other post.

(*d*) The applications—appeals procedure left the initial decision with the department and the check with the Public Service Board. It made it impossible for the Board to have an active career placements policy but reduced the tensions liable to come from serving civil servants feeling disgruntled in not having a chance for a particular job. At the same time it did not prevent departments having their own personnel policies.

(*e*) The system would come under much greater strain if the Service failed to continue the expansion of recent times with its attendant opportunities both for promotion and change of character of job.

(*f*) The system must involve a good deal of paperwork. (Much of this is generated by the practice of protective appeals, whereby an officer who has been promoted to one of a number of positions advertised *en bloc* appeals against the other promotees in case his own promotion is overturned on appeal.)

From this brief description of the Australian system it can be seen that to a large extent it would meet the objectives set out by the Joint Committee on Fulton. Lest it be thought to fall down on the economy of operation test, it should be remembered that the promotion appeals procedure is a refinement of the system and not central to the concept of it. Even without an appeals system as elaborate as that now in operation it is unlikely that service-wide advertisement of vacancies, the key to the system, would become any less frequent.

* *The Commonwealth Public Service: Notes*; Canberra, September 1968.

It is not being suggested that because the Australian system largely meets the Joint Committee's emphasis on individual opportunity something similar might have emerged in Britain, but it would be worth while to establish why the two systems are so unlike.

Look at current British practice from the individual's viewpoint. An officer is paid according to the grade he has achieved. His career is advanced by:

(*a*) Developmental postings within that grade arranged for him by his department's Personnel Division, which takes into account his line manager's assessment as stated in staff reports and job appraisal review reports, and, where possible, the officer's own preference.

(*b*) Promotion to a higher grade by successful appearance before a departmental Promotion Board, to which he will be called when he has a specified seniority in his present grade and can meet other departmental criteria.

The officer has the right to have his career situation reviewed in a career interview with his Personnel Division. It is intended that career interviews will become a more frequent and regular feature of an officer's career and not just given on request as at present.

If he has been within his seniority field for promotion for a specified number of years he has the right to appear before the Promotion Board whether called or not if he so desires. If he is within the seniority field at all he can appeal against not being called by the Promotion Board. And if he is unsuccessful at the Promotion Board he can appeal against non-promotion. These promotion appeal rights are exercised in far fewer cases proportionately than their equivalents in Australia.

From the individual's viewpoint there are two salient features of the British system. The first is that he has only limited influence over the direction of his career and his progress through it. The second is that his whole career is largely confined to one department. Both are rooted in the history of the Service; the one in the linking in the nineteenth century of entry and to some extent prospects to educational attainment, the other in the large measure of autonomy always enjoyed by departments in personnel management matters. It is true that some departments operate posting schemes involving a degree of self-selection. Many are also developing procedures to cope with the phenomenon of negative preference—staff declining to move to London even on promotion. But for the most part the Personnel Division initiates and the individual responds, and not the other way round. This should not be allowed to obscure the fact that the system has served the Civil Service extremely well. Its capacity for the identification and development of talent has proved more than equal to the task of producing for the top of the Service the right people in the right numbers at the right time. Until recently, however, the number of careers actually being managed was relatively small.

Aiming to provide effective management of over half a million

individual Civil Service careers means a great many more staff employed on personnel work than has been the case in the past. In its 1969 report (*Developments on Fulton*) the Joint Committee on Fulton recognized that higher standards in personnel management called for 'the employment of additional high quality staff' and that progress depended 'upon the ability of the Service to make enough of the right people available'. It is a fact of Civil Service life that when manpower is scarce domestic management functions will be among the first to feel the pinch. This is bound to make progress on the career development front difficult.

There may be a case in such circumstances for expanding the scope for individual initiative in career development. If departments find themselves unable to devote resources to doing as much for their large numbers of lower level staff as they might like, they may well find those staff themselves willing and able to play a responsible part in the career development process.

Australian experience suggests that a measure of staff initiative in career development is viable, from a management viewpoint, to almost the very top of the Service. If there is a line to be drawn between those whose careers are managed and those who are to be allowed a certain amount of self-management in this regard it would seem it can be drawn almost anywhere.

Where management sees its career development responsibility primarily as the husbanding of a scarce management resource it will inevitably seek to exercise its prerogatives as far down the career structure as it can. It will be a rare organization, however, which has both the will and the resources to effectively manage all the careers within it. At the level where either is not forthcoming there is both scope and need for the individual to make his own contribution.

Why Paper?

A Study in Publishing with Microfilm

SQN. LDR. J. J. SIMMONDS, R.A.F. Supply Control Centre

The Royal Air Force has in use over one million items of equipment and its range is expanding at a rate of 3 per cent per annum. It is essential that these items are catalogued and the catalogues kept up to date. The items range in complexity from cups and saucers used in married quarters to electronic 'black boxes' used in aircraft. It would not be practicable to include all items in a single catalogue and therefore several types of catalogue, ranging from Illustrated Parts Lists to a simple alpha/numeric listing, are employed.

In common with any organization with a large inventory of equipment we have found that keeping our catalogues up to date is an almost impossible task. Our problem may be greater since we are connected with an industry where rapid advances in technology are commonplace; we are involved in integration and rationalization with the other Services; and we have a centralized supply computer system. Over the years studies have been undertaken to find a method of improving our cataloguing system, but they have all been orientated to conventional publishing techniques.

In 1969 a new process, Computer Output to Microfilm (COM), was developed to replace, in many respects, the conventional line printers used with computer systems. For those not familiar with this technique the following thumbnail sketch may be of assistance (a more detailed explanation can be obtained from C3 Division of the Central Computer Agency). After the computer processing of data the output magnetic tape so produced is used for the COM process. This tape is placed on the tape unit of a computer output microfilmer where it is read and converted to electronic impulses which are displayed on a cathode ray tube housed within the printer. This part of the process is similar to a television company's video recording except that the characters appear one after the other, as in typing, and having been displayed on the screen they fade away. Positioned in front of the cathode ray tube is a shutterless camera which records the images on either 16 mm, 35 mm, or 105 mm film. Once the last character has been displayed an outline format can be superimposed on the film if required; the screen is then electronically blanked out, and the film is advanced one frame in the camera. The whole process can operate at up to speeds of five frames of film per second, or in comparison with a grade 1 typist, 40,000 characters per second as opposed to five.

At last there was a possible breakthrough in the problem of keeping publications up to date and in 1971 it was decided to investigate the

feasibility of using COM to produce a catalogue of equipment. The Catalogue of General Royal Air Force Equipment, known throughout the Service as Air Publication (AP) 1086, was chosen for this study because it was extremely large, containing nearly half a million items, and, more to the point, it was a straightforward alpha/numeric listing which was not complicated by diagrams.

AP 1086 provides two useful services. The first is that if you know the stock number of an item then by use of the index you can find the cataloguing details. The second service is, perhaps, even more important as we move into the era of on-line supply computer systems. By listing items alphabetically under generic commodity headings it is relatively simple to find the stock number when only a general description of an item is known. However, the value of this facility is reduced when the catalogue is known to be about a year out of date.

To understand why AP 1086 is out of date it is necessary to look at one or two of the problems associated with it. The printed version had 2,500 copies in circulation each containing about 11,500 pages, a total of 28,750,000 pages. To amend these books we used the page changing system and in 1971, the last full year amendments were issued, 30 million pages of amendments, 151 tons of paper, were circulated in an attempt to keep the publication up to date. There were two main reasons why we could not keep it up to date: first, it took on average seven months to prepare, print and distribute the pages of amendments; second, every user received about 1,000 pages of amendments per month which we estimated took 10 man-hours to incorporate—10 man-hours which had to be found in these days of manpower economy.

The feasibility study, undertaken by staff of the Director of Supply Systems (RAF), covered not only the possibility of using COM for publishing a catalogue but also the methods to be employed and the presentation to be aimed at. Several commercial computer bureaux were consulted and staff of Ministry of Defence (Man C3) and Civil Service Department (MS(G)) played a very active part in the study. The two basic forms of microfilm—16 mm roll film and microfiche (sheets of film approximately 6 in. by 4 in.)—were evaluated and it was decided that because of the up-dating tasks, about 60,000 changes per year, and the size of the file, 16 mm roll film was the only practicable system for AP 1086. The team also opted for the comic mode of presentation, frames of film side by side as in a book, designed the output format, and laid the ground rules for type fount and general appearance.

By early 1972 it had become a practical proposition to produce AP 1086 on microfilm using COM and to achieve the standard of presentation required. The project had been costed, with favourable results, the operational requirement had been drafted, Treasury approval had been obtained, and the project had been passed to the RAF Supply Control Centre for implementation. In May 1972 a team

with representatives from MOD Man C, D of SS (RAF), CSD, and the Supply Control Centre visited several commercial bureaux who had shown an interest in the task. The operational requirement was explained in detail and the companies were asked to submit outline proposals and costings. These were subsequently evaluated in conjunction with the Central Computer Agency and the companies from whom tenders should be sought were chosen.

At the same time the RAF Project Officer was, with the assistance of the RAF Supply Management Branches, preparing the hard copy AP 1086 for conversion to a computer record. This involved editing the text to conform to the revised standard layout—over 40 different formats had been used in the 500 ranges in the printed version of AP 1086—and catching up the backlog of amendments. Both time and the clerical effort involved precluded the rewriting of AP 1086. The result was that after a hard six months of amending and 'Snopaking' the documents were barely fit for a grade 1 typist to decipher, let alone a key punch operator who normally works from a punching document.

Throughout the latter half of 1972 discussions continued with those companies who were considered capable of undertaking the task. The poor quality of the input material was explained and examples were given to the contenders. It was also explained that the quality of presentation of output would have a large bearing on who was awarded the contract. However, the most important factor would be the ability to meet the required time scale: initial file construction and publication of AP 1086 within six months of the date of the contract, and the publication of the monthly Change Lists within five working days of the cut-off date.

Tenders were issued in October 1972 and a contract awarded in January 1973. Work commenced on data preparation in February and, to allow for any possible slippage, a publication target date of 3rd September 1973 was set. We had expected problems as it was the first time COM had been used to produce an alphabetically orientated catalogue. However, the problems were more numerous, and more far-reaching, than we had envisaged. The project started to slip, almost from the off, because the contractor was not achieving the key punching rate he had planned. The system design and programming took longer than anticipated, and although this did not form the critical path it did delay the final systems tests. Concerted efforts by the contractor, plus the goodwill and excellent co-operation between the contractor and the Project Team, ensured that the slippage was kept under control. During the spring and early summer of 1973 steady progress was made in converting AP 1086 to a computer record.

To read the final output it is necessary to have microfilm readers, cassettes and film spools. As this was to be the first general application of microfilm in the Ministry of Defence it was necessary to buy readers for every user of AP 1086. Our calculations showed that AP 1086 would require 10 cassettes per copy, and to issue a cumulative Change

List once a month and cope with the reissue of the main catalogue over a 12-month cycle would require 24 film spools per annum for each user. Substantial orders therefore had to be placed by HMSO on behalf of MOD for microfilm readers, cassettes and film spools. It became one of the Project Officer's tasks to phase deliveries of microfilm readers, cassettes and films to meet the publication date.

By the end of August 1973 AP 1086 had been converted to a computer record and the systems tests had been completed satisfactorily. The equipment was prepared and publication of a major catalogue using COM was about to commence. However, it was not to be. The first major problem was upon us. The capacity report, which could not be produced until all computer processing and formating for COM output had been completed, showed that AP 1086 would require 14 cassettes and not the calculated 10. An urgent order was placed for additional cassettes, but as these were not immediately available an alternative cassette had to be ordered. In addition to the cassettes problem the additional capacity resulted in an increase of 40 per cent in the film duplicating task. We now had to process 1,841,334 feet (or nearly 350 miles) of film to produce AP 1086. And finally several thousand additional films had to be cassetted, no mean task when one was already behind the clock. To ease the problem it was decided to issue AP 1086 in two phases: the first, and in size the greater, to the RAF and MOD (Air) and the second to all other users. Having made our decision and gathered our resources we noted, with dismay, that 3rd September had slipped by and AP 1086 had still not 'been put to bed'. On 17th September 1973, just 14 days late, the first roll of film was produced and our worries appeared to be over. But again our plans were dashed. We experienced more machine failures than could ever have been imagined and this was coupled with initial system errors that also delayed the task. Every cloud, I am told, has a silver lining, and ours was that we tested our fall-back facilities to the limit. We worked seven days a week, 24 hours a day, and slowly we gave birth to the AP 1086. The initial issue of AP 1086 to the RAF and MOD (Air) was completed by mid-October. A start was made on the second phase but the alternative cassettes gave rise to loading problems that we had not expected to encounter and the second phase was not completed until the end of November 1973.

The scheduled date for the second Change List to be delivered to MOD was 10th November 1973, the first Change List forming part of the initial issue. Having experienced so many problems in making the initial issue, and knowing that at that time only six cassettes of the second phase had been issued, tension was increasing as the day approached. The whole concept of AP 1086 on microfilm was based on the ability to publish amendments quickly. At no time should AP 1086 be more than 37 days out of date and, at best, it could be as little as seven days old. The Air Publication and Forms Store at Woolwich had geared itself to the issue of these as soon as they were received, but

they relied on the contractor meeting his time scale. By 2 p.m. on 19th November Change List No. 2 had been received at APFS and within 27 hours it was on its way, on schedule, all over the world. The monthly distribution system had worked; now we must make sure that AP 1086 lives up to the expectations.

We now have in the RAF a catalogue of equipment which can, with the minimum of effort, be kept up to date, and is easy to operate, using the 'two look' approach. We have saved many thousands of man-hours previously expended by users amending the publication, we estimate it to be 100,000 per annum in the RAF, and after implementation the system was costed out to be £26,000 per year cheaper than the conventional system. But for these advantages we have paid a price. We have lost some of the niceties of the printed version, the indenting to indicate ranges of spares and the many variations of type fount and layout. However, we feel that this is a small price to pay for speed and ease of amendment. As COM is developed we may yet be able to return to the more flexible approach of conventional printing.

The 'two look' approach mentioned earlier ensures that the latest version of an item is found every time. Initially this entails checking against the Change List, for all the amendments are contained therein. Should the item not be found, then the information contained in the appropriate sub-section cassette is the latest available.

In 1971 we had a catalogue of equipment which was beautifully printed on high quality paper but, because of size, was almost impossible to keep up to date and was therefore becoming less and less a book of reference. In fact it was approaching the state of being a white elephant, but its effects were being felt in the number of demands for equipment which were being rejected because of incorrect data; all such rejections being time-consuming and costly. The advent, as far as the RAF was concerned, of COM was timely and in the short space of 2¼ years AP 1086 on microfilm has been converted from an idea to reality.

The task is not yet complete; we still do not have the ideal catalogue and the one we do have contains errors. This is only to be expected when the quality of the input material is taken into account. What we do have is a valid system on which to build and a system which can be amended easily and quickly. It was always planned that the main catalogue should be reissued over a 12-month cycle and we see no reason why this should not be achieved.

We do not claim that the COM-produced AP 1086 is the answer to all our problems. For instance, it does not resolve the problem of a catalogue with associated line diagrams or text. But it is a large step forward in the right direction and the feasibility of using COM for these further applications must not be overlooked.

One other aspect which must be mentioned is the way in which the Central Computer Agency, the Civil Service Department, Her Majesty's Stationery Office and the Ministry of Defence co-ordinated

on this project. Many different branches within the Departments were involved and the fact that the first film was issued only 14 days late is evidence of the excellent co-operation and assistance given to the Project Team.

In this short article I have attempted to give some indication of the problem that faced the Project Team and the method of resolving it. For those readers who are about to embark upon a COM project, or are considering such, and would like more detailed information about this particular project, reference should in the first instance be made to Management Computers (Projects) Division of the Ministry of Defence, who will be happy to assist. The Assignment Officer concerned is Mr. G. R. Clark (telephone 01-930 9400, extension 4020).

The Power of the Box

Some Experiences with Videotape in Training

H. W. BUNKELL, Civil Service Department

In the August 1973 edition of this journal Walter Wolfe answered the question 'What is a Staff Inspector?' This article outlines some of the things we have discovered in using videotape in the training of staff inspectors from Government Departments.

Staff inspectors are concerned with the maintenance of grading and complementing standards in their departments and one of the tasks of the team of staff inspectors in the Staff Inspection and Evaluation Branch of CSD is to see that the standards are consistent across the Civil Service. As a logical step towards this consistency the CSD staff inspectorate trains newly appointed staff inspectors from other departments.

Most of a staff inspector's job is done away from his own base; he goes out and sees work being done, he interviews people and he discusses grading and complementing with management. Unlike his more desk-bound colleagues he is often working on his own and if he has a problem he cannot readily consult a colleague. So when we designed a CSD training course for departmental staff inspectors we had to provide as much practical training as possible as well as the theory. One way to give practical training would be to put a number of trainees with experienced staff inspectors, much as a consultant physician in a teaching hospital has his train of students in his wake. But we felt that while hospital patients might accept a team of students, followed by *sotto voce* consultation and instruction by the expert, this method was less likely to obtain acceptance in the Civil Service.

In the event we decided that we must simulate reality in the classroom. This would also have the advantage that we would know just

what practical experience was being obtained and would help us to see that it is the good practices and not the bad ones which get passed on.

We first met the need for the presentation of practical situations by the use of live actors, drawn from our own team of staff inspectors and support staff, acting out incidents from real life, followed by course discussion. Then we decided to experiment with the use of videotape recording, partly because we are concerned professionally with manpower resources and were very much aware that even to bring two people along to the lecture room to play roles was expensive and that more elaborate simulations were correspondingly more expensive, partly because props had to be imported each time or the audience asked to imagine them, which can introduce an element of unintended comedy, and partly because arrangements had to be made well in advance so that the actors would be available; also some amount of rehearsal was necessary, however good the line-learning of the actors. There was also the very compelling reason that we run our courses at the Civil Service College at Sunningdale, and the college has videotape equipment. So with the help of the visual aids demonstrator at the college, who pushed all the right buttons for us, we started, as I suppose most people do when they start using videotape for training, by recording an interview, played for us by two colleagues who had already shown the same interview live on previous courses.

We learned a number of lessons straight away. First of all, we had put our actors in the same relative positions as they had occupied in the lecture room—on either side of a small table. On the monitor screen they looked as if they were at the opposite ends of the Centre Court at Wimbledon. We put our actors closer and closer together until they were almost in each other's pockets: the camera saw them as being at a respectable distance. This showed an advantage—you do not need very much space to make videotape recordings. In our manoeuvrings we had changed our table and chairs for lower ones. One of the actors was just a little short of hair on top and the script called for him to reach forward to pick up some papers. He did so, lowering his head, and the monitor screen flashed like a toothpaste commercial. We had remembered not to let our actors wear white shirts, but we now think of other sources of reflection when we make our videotapes.

Without the actors needing to use other than normal tones we found the microphone could be placed well out of camera range. We also found how much extraneous noise the human ear disregarded. The microphone faithfully recorded a tea-trolley, loaded with rattling cups, which was wheeled down the corridor and past the door. We left this in, as an acceptable impromptu sound effect but the stopping of the College bus outside the window meant a re-take, as did the picking up of an adjectival clause from a building contractor's man in conversation with his colleague.

We found that the use of videotape concentrates the mind most effectively. A simulation which took 25 minutes to perform live, having

already been pruned to essentials, could be done in little more than half that time on tape. When we saw the replay of our first attempt—and one sees it, of course, immediately after the recording—we found we could prune again and still make all the points we had made live. The re-takes showed us another advantage—at the first take the actors are conscious of the camera, at the second they begin to relax, and by the third they are behaving naturally. So we now concentrate on 'situation briefing' rather than the following of a script; we record a first run through, show it to the actors, rewind the tape and record again, the actors decide how they can improve and at the third take the performance is usually a natural one.

We now use videotape recordings for sessions on interviewing and the oral presentation and discussion of recommendations, and we have a series of very short recordings of incidents in staff inspection, based on real life experience which we use at a discussion session. The playback equipment is set to the footage indicator of the particular incident while the chairman of the session very briefly sets the scene, the incident is shown and at a suitably difficult point the course members discuss how they would tackle the situation; the chairman then sums up. While the chairman is introducing the next incident the playback equipment is set at the footage indicator of the next incident selected. The range covered by the incidents is wide, and we select from the repertoire according to the requirements of the members of each course. The point always comes out that dealing with people is something which can never be standardized; the way in which our incidents are tackled by different course members must be affected by the personality and style of the member, and what might be the right approach for one could be wrong for another. Because we are very familiar with the incidents and we know just what is coming next, we can more readily guide the discussion according to the temperament and personality of individual course members. The incidents themselves are suggested to us by our colleagues when they meet similar ones in real life. The visual presentation, followed by the discussion, is far more effective than a straight lecture and the time taken is much shorter. So far as the recording itself is concerned, we have put eight short incidents of one to three minutes' running time each, on to tape in 2½ hours.

We have the advantage that our course is residential, both for the course members and the directing staff, so we hear more from the course members about the impact of our instructional efforts than would otherwise be the case. This informal audience research has opened our eyes to many things. One of our speakers on the course recorded a session in which he played an unsympathetic role. He interviewed in a brash and cavalier manner another member of our team who took the part of an obviously reasonable but reticent interviewee. The short recording made points which we wanted to demonstrate. We showed the videotape recording in the morning and after lunch the speaker who had played the unsympathetic role came along to give a lecture,

on a different aspect, which had in the past always gone down well. But this time his audience was perceptibly hostile. They were inclined to challenge the points he made and it was clear that his unsympathetic role had carried over into real life; in television jargon he had been type-cast in his audience's mind as brash and cavalier. Some course members realized that their minds had been influenced by the television session, but still found it difficult to accept that our speaker was not really brash and cavalier. We thought this might be a freak response, so we kept the same session, in the same sequence, on our next course. The response was the same. Next time we brought the speaker on to give his talk but this time before the television session. This time the course members had seen him in the flesh first and accepted the television portrayal as the fantasy. But the experience convinced us of the need to treat this very potent visual aid with care.

Much of our recording is fitted in with other activities. We invite members of our staff inspection team who come along to give talks or take sessions in our courses to contribute to the stock of recorded simulations and incidents, and we can do this while members are doing a syndicate exercise. The speaker has to be there in any event to visit the syndicates and to take the report-back session, but there is also time to do some videotape recording.

We always show our volunteers the results of their efforts and if they do not like them we do not use them; we feel, in view of what we found from our image creating experience already mentioned that this is only fair.

Our casting is the result of observation, and only occasionally do people play their real-life roles. One of our most realistic Clerical Officers on videotape is in fact a Senior Executive Officer, an Executive Officer has played a very convincing Head of Division, and a Clerical Assistant a most life-like Administration Trainee.

Many people are disappointed and even disheartened by the first impact of seeing themselves on the television screen. They see mannerisms which they did not know they had and the effect generally is distinctly deflating to the ego. For this reason we have never, for example, recorded a course member taking an interview and then exposed the recording for general course criticism. We do this sort of thing live; sometime we may very cautiously try it on tape, but from what we have seen of the power of the medium we do not want to rush in and risk destroying self-confidence at the beginning of a course member's new job.

All our recordings are made as simply as possible and we avoid anything that looks like the pretentious. There is a great temptation for amateur movie-makers to imitate the professionals. 'We went on holiday by train (family arriving at station followed by stock shot of diesel train flashing past the camera) and by air (stock shot of jet aircraft taking off). . . .' And videotape makers are similarly tempted. The same thing goes for titles. Some amateur movie-makers go in for suitably out

of copyright music played by non-members of the Musicians' Union as the title unfolds, giving credit to everyone with any connection at all with the film. We do not use incidental music, cuts from other films or titles. We are sure that titles are a barrier between the audience's expectation and realization. As the professional television producers have found, the best way to 'grab' their audience is to go straight into the first scene, leaving the credits and titles, which are obligatory for them, until later. In our case, the person who is taking the session briefly introduces the recording, the start button is pressed, on comes the sequence (at least with videotape you do not get the thing upside down or sideways) and at the point where we want to start discussion the stop button is pressed, and so on.

We were fortified in our insistence on simplicity by some useful feedback at the 'criticize the course' sessions which we always have at the end. We had in our collection some incidents which we had recorded in an authentic office setting with the lighting just right, and altogether we were rather pleased with the quality of our actors' performance and the recording. But we wanted one or two more for a particular purpose, so we literally dashed them off in a matter of minutes. The audience response was that the ones which looked more like television news interviews were better than the ones which looked more like BBC or ITV drama productions. They had the right atmosphere of real life about them.

In some of our simulations we put the camera behind the interviewer, or the person with whom we want the audience to identify themselves and we literally shoot over his shoulder, using the zoom lens to concentrate on the other people—as it were through the eyes of the interviewer. Apart from the initial cries of horror from our actors, who are for the first time seeing their own rear view, we find this method to be very effective, and many of our course members have told us later how, when they met the situation in real life, they tackled it with the confidence that they had met it before.

The use of the equipment is very simple. The camera has a right way up, right way round viewfinder of snapshot size, and the twist and turn movements of the zoom lens and the camera on its tripod are soon mastered, particularly if the camera operator has ever used a cine camera. After a first run the camera operator knows when he should zoom in or back and it is easy to arrange for him to get a tap on the shoulder when, for instance, someone is about to make an entrance so that the camera can pick it up. We usually have one person operating the camera, one (in our case usually the demonstrator who has the custody of the equipment) to operate the tape recorder, and another, call him the producer if you like, who watches on a monitor screen and can signal people when to come in, see that the props are in the right place and, when the wind is in the wrong direction at Sunningdale, signal a halt when a jet aircraft comes right overhead *en route* to or from Heathrow. We have recorded very satisfactorily on an afternoon in

December using only ordinary office fluorescent lighting with the plastic diffusion screens removed but we usually find that the addition of an ordinary desk lamp directed on to white paper on the floor, below camera range, improves the lighting on the faces of seated characters.

Like ordinary sound-tape, re-takes are simply recorded over previous material, which is erased in the process of re-recording. The tape itself needs to be handled carefully, for kinks in it are liable to leave deposits on the play-back heads resulting in a snow storm on the screen. We have found no need for elaborate mixing equipment and no real disadvantage in the fact that splicing videotape is beyond the capabilities of the relatively simple equipment which we use. The cost of the tape is less than £8 for about an hour's recording, and we have used some of our tapes over and over again, for re-recording and up-dating material, without any loss of quality. This ability to up-date material is a great advantage. The repeated use of old training material can become very dull for the lecturer, and freshness and spontaneity can easily be lost. Because videotape recordings are so simple to make we regularly up-date, prune or change the emphasis of our material. Sometimes we keep the old version because we may want to use it again, perhaps in a different context, but more often we erase the old one.

Videotape is a very flexible visual aid and we do not apologize for the fact that we get a great deal of fun and satisfaction out of using it. We like to think that some of this comes through into the training sessions. We may be lucky in that we are only trainers for part of our time—most of our time is spent doing the job which we spend the other part training other people to do, so we can come fresh to each course. Videotape helps us a lot.

Management Systems Training Council

Many readers of MANAGEMENT SERVICES IN GOVERNMENT remember the Organization and Methods Training Council for its original four-week course in O and M. Since those early days in 1956, many changes have taken place. For example, during the last four months of 1973 courses of one or two weeks' duration were held on business systems analysis and design, advanced business systems, computer systems design, project management, organization and methods, data communications based systems, communications, numerate techniques and forms design. This wide range of course material has given rise to the Council's decision to change its name to the Management Systems Training Council.

These are not the only developments to have taken place recently in the activities of the Council. Discussions on joint training with the

Institute of Administrative Management have resulted in the Council's courses now being offered by the Institute to its members. In addition, the Council has recently moved its headquarters from London in order to centralize its operations in the Midlands, where it is now within reasonable distance of all the main centres of population which it serves; the residential courses it provides are available in four hotels in the area, and two of these are actually building conference facilities in their premises for the Council. The Council's office has also been moved to Sheldon, Birmingham, and all the staff will shortly be located in the Birmingham area. It is clear that the Council has moved far since the days of its formation.

In order to appreciate the contribution which the Council has made, and continues to make, to the efficient running of industry, it is, however, necessary to know a little more about its formation and early history. In the years immediately before 1956 the O and M managers of a number of large industrial companies were in the habit of meeting informally in London to discuss matters of common interest; and it became clear during the course of these discussion that in their view the national arrangements for training in O and M were inadequate. It was accepted that for some years courses on O and M had been conducted by the Office Management Association, now the Institute of Administrative Management. But while the pioneer value of this work was agreed, it was thought that the resources to back up the Association's courses were inevitably limited, and the courses strictly speaking not national in scope.

The managers in this informal group, who represented such companies as Imperial Chemical Industries, Shell-Mex and B.P. and Unilever, therefore decided to discuss this absence of O and M courses with the British Productivity Council; and as a result the OMTC was ultimately formed with the financial backing of those companies whose O and M managers were its founding members. Its declared function was to provide O and M training for industry on a national scale; and among other policy matters on which agreement was reached was that since the techniques of O and M were essentially practical they should be taught by practitioners. This has remained the policy of the Council to this day, as has the provision of training based on the practical experience of members companies.

The Council's first director, Mr. G. E. Milward, formerly of the Treasury, was appointed in 1957. Courses began in 1958, and the Council's manual *Organization and Methods—A Service to Management* was published in 1959. A number of companies became associate members during the first years of the Council's activities, although their status differed from that of the founding companies. Constitutional and organizational differences such as these, coupled with the advent of the computer, which created a demand among members for training in computer systems analysis as well as in O and M, led in 1967 to certain changes in the Council. As a result the Council now has a Board of

Governors, a Training Advisory Committee and a Finance and General Purposes Committee, and member companies provide a widely representative cross-section of industry, commerce, finance, public utilities and nationalized industry.

Another result of the constitutional changes which took place in 1967 was the election of a chairman from within the Council for the first time. Mr. N. C. Pollock of the British Steel Corporation was the first chairman so elected. He held this position until 1969. In that year he was succeeded by Mr. Ian Nelson of Rolls-Royce, and then by the present chairman, Mr. Eric Holloway of Alcan Booth Industries.

After this brief historical survey it is now necessary to say something more of the present activities of the Council. And here a reference may be made to one factor bearing on its operations which does not relate to technical matters, but to the general conduct of its affairs. When the Council began running courses it had little or no competition. Since then courses on various aspects of management have increased, with the result that the Council has been facing competition—not only what might be called disinterested academic competition, but since a number of organizations have in recent years run courses simply to make profit, commercial competition also.

In spite of—or, perhaps, because of—that competition, the co-operative nature of the training given, which is based on the use of lecturers and exemplifiers from member companies who give their services without fee, is still an essential feature of the Council's work; and this is one reason why the Council's charges to those attending courses are so competitive. But it could also be claimed that increasing competition has introduced into the conduct of the Council's affairs a greater professionalism than at first existed, or was perhaps even necessary. The organization is certainly more strictly controlled now from the point of view of costs than it was in the early days. To take three examples: by group bookings it has been possible to keep down the cost of residential courses; economies have been made in the purchasing of supplies and in printing costs; and some of those who lecture on the Council's courses have also been asked to lecture, for a fee, on outside courses, or courses run within the premises of member companies. In a word, the techniques advocated on Council courses are now being applied effectively to the Council's activities themselves.

As we have seen, one of the greatest changes which has taken place in the courses resulted from the advent of the computer and of the systems designed for it. To that extent the Council now caters for a less specialized audience than one concerned only with O and M. There has also been a move to attract laymen to the courses—line managers, for example, who feel they would profit from a general introduction to management services.

It is not possible to place too great an emphasis on the fact that the training which the Council offers is based on the practical experience of member companies. But while lecture sessions, student notes, case

studies and examples and other course material are prepared and presented by member companies, the overall responsibility for preparing and presenting courses as a whole is that of the Council's full-time directing staff; and while courses in O and M techniques have been offered since the foundation of the Council, its major activity is now the presentation of training courses for those specializing in the investigation, design and implementation of business systems generally.

The Council's activities are not restricted to national training based on its Midlands headquarters. There are five regional groups that meet regularly to exchange ideas and experience, a common arrangement being for a member to give a report on matters of topical interest in which he has been concerned. Among subjects dealt with at recent regional meetings have been Managing a Project, The Organization of our own Company's Management Services Department, Financial Modelling using a Computer Package, and Auditing Computer Systems.

Apart from publishing Milward's standard work on organization and methods, the Council has published *Launching and Managing O and M*, *Applications of O and M*, *Further Applications of O and M*, and *Office Efficiency by O and M*, while a new volume replacing the earlier *Organization and Methods—A Service to Management* is shortly to be published. The latter volume will cover management services and not just O and M. The Council also issues illustrations, case studies and model answers suitable for those presenting their own O and M courses, while the Council film *Desk Side Manner*, demonstrating errors in interviewing during a system investigation, has recently been reissued in colour.

Any company or organization may apply for membership of the Council, which is currently about 130 major groups and represents many more actual companies. This membership is conditional on the organization respecting the aims of the Council and providing experienced staff from time to time to help in developing and presenting course material. It is also understood that companies shall refrain from deliberately promoting the sale of their goods or services to other members, and that companies shall be prepared to exchange information with other member companies on matters of common interest. Members benefit because they are themselves able to influence course development, and get the benefit of the experience of other members, not only through the actual courses, but also through links formed through the association.

Non-members can also use the courses, as for example does the Institute of Administrative Management, but they do not have the benefit of such low course fees.

Course fees are low because of the efficiencies described but also because the Council is a non-profit making body. Further development of new courses continues, to serve the needs of the membership and other users.

Computer Installations for Government Departments

A list of all Government computers as at 1st January 1973 was published as a supplement to the May 1973 edition of MANAGEMENT SERVICES IN GOVERNMENT. Details of computers ordered during the period July to September 1973 are shown in the following table.

DATE OF ORDER	DEPARTMENT[1]	LOCATION	MAIN USES	MANUFACTURER[2] AND TYPE OF COMPUTER
1B Computers on order for administrative and general purposes				
July 1973	DHSS	Reading	Short-term benefits	BCL Molecular 18
August 1973	DHSS	Fleetwood	NHS superannuation and statistics	ICL 1904S
September 1973	DHSS	Newcastle	Pensions, family allowances, payroll, etc.	ICL 4/72
2B Computers on order for scientific and technical purposes				
August 1973	MOD (Air)	Bracknell	Research	DEC PDP 11/40-EN

[1] Department Key (*Column* 2)
DHSS Department of Health and Social Security
MOD (Air) Ministry of Defence (Air)

[2] Manufacturer Key (*Column* 5)
BCL Business Computers Limited
DEC Digital Equipment Corporation (UK) Limited
ICL International Computers Limited

Printed in England for Her Majesty's Stationery Office by The Campfield Press, St. Albans